CALIFORNIA STATE UNIVERSITY
LONG BEACH

California State University Long Beach Master Plan Update

ENVIRONMENTAL IMPACT REPORT APPENDICES

STATE CLEARINGHOUSE
NO. 2022040460

JANUARY 2024

APPENDIX A

Notice of Preparation, Initial Study, and Scoping Comments

Notice of Preparation

April 21, 2022

NOTICE OF PREPARATION

To: Responsible Agencies, Trustee Agencies, Stakeholders and Interested Parties

From: California State University, Long Beach
Office of Design + Construction Services
1331 Palo Verde Avenue, Long Beach, CA 90815

Project: California State University, Long Beach Master Plan Update

Subject: Notice of Preparation (NOP) of an Environmental Impact Report (EIR)

California State University, Long Beach (CSULB) will prepare a Draft Environmental Impact Report (EIR) for the proposed California State University, Long Beach Master Plan Update (Master Plan Update, proposed project). CSULB has prepared this Notice of Preparation (NOP) in accordance with Sections 15082(a) and 15375 of the California Environmental Quality Act (CEQA) Guidelines to notify responsible and trustee agencies, stakeholders, and other interested parties that CSULB plans to prepare a Draft EIR and to request input regarding the content of the environmental analysis and information to be included in the Draft EIR. The California State University (CSU) is the lead agency responsible for compliance with CEQA for the proposed project, and the CSU Board of Trustees is the approving body for the proposed project.

For residential recipients of this notice: You are being provided with this notice because of your property's proximity to the California State University, Long Beach campus.

Background. Each of the 23 campuses within the CSU system is required by the CSU Board of Trustees to prepare and periodically update a physical Master Plan. The Master Plan is intended to guide the physical campus development necessary to support the needs of current students, faculty, and staff as well as projected student enrollment and student, faculty, and staff campus population growth, which serve as the basis for determining long-term academic, administrative, student support, student housing, and athletic and recreational program space needs, in accordance with approved educational policies and objectives.[1]

The current Master Plan for the CSULB campus was approved in 2008 and was intended to guide campus development through the horizon year 2020. The 2008 Master Plan provided a framework for land use, development, open space, and circulation to accommodate projected enrollment of 31,000 full-time-equivalent students (FTES) on the campus by 2020.[2] A number of 2008 Master Plan projects have been implemented as originally proposed or with modifications addressed in addenda to the 2008 Master Plan EIR.

1 California State University, State University Administrative Manual (SUAM), Section II, Physical Master Plan and Off-Campus Centers: Section 9007, Development of Physical Master Plan, 2020, available at: https://calstate.policystat.com/policy/8837634/latest#autoid-dgx6z, accessed April 1, 2022.

2 Full-time equivalent student (FTES) is the unit of measurement used to convert class load to student enrollment. At CSULB, one undergraduate FTES is equal to 15 units. Thus, one undergraduate FTES is equal to one undergraduate student enrolled in 15 units or three undergraduate students each enrolled in 5 units. A related unit of measurement is "headcount." In the case of one student taking 15 units, the headcount is 1; in the case of three students collectively taking 15 units, the headcount is 3.

The 2019-2020 academic year (AY) is the most recent year of pre-pandemic, in-person campus operations. CSULB enrolled approximately 31,000 FTES in AY 2019-2020, with approximately 27,000 FTES on-campus and the remainder receiving instruction remotely and pursuing educational experience off-campus. CSULB has recently established a goal of increasing online programs and services in order to serve a greater proportion of its future enrollment.

Project Description. The goal of the present Master Plan Update is to support and advance CSULB's mission, strategic vision, and values by continuing to guide long-term physical development of the campus to accommodate a projected increase in student enrollment and the corresponding campus population (which includes students, faculty, and staff) through the Master Plan Update horizon year 2035. CSULB's projected enrollment at the horizon year 2035 is approximately 36,000 FTES, with approximately 31,000 FTES expected to be on campus. This represents a projected increase of approximately 5,000 FTES, including 4,000 FTES on-campus, compared to AY 2019-2020. The Master Plan Update is intended to accommodate this projected student enrollment and the corresponding campus population.

CSULB's enrollment projections for purposes of this Master Plan Update assume annual compounded growth of one percent throughout the life of the Master Plan, as directed by CSU's Office of the Chancellor, which consults with the State legislature to anticipate systemwide enrollment growth and associated funding. However, the future student enrollment and campus population growth projections in the Master Plan Update do not limit CSULB's future student enrollment or campus population. Rather, the projections represent assumptions about future growth through the horizon year 2035 that serve as the basis for determining long-term space and infrastructure needs on the campus, and on that basis, the Master Plan Update defines a maximum development envelope and identifies necessary infrastructure upgrades for purposes of long-term planning and environmental analysis.

The Master Plan Update addresses CSULB's current and future needs, focusing less on physical growth and more on optimizing the existing physical assets of the campus. The Master Plan Update also identifies priority projects to be implemented in the near term. The primary strategies for implementing this Master Plan Update include renovation of existing buildings (renovation), demolition and replacement of existing buildings in the same physical location (replacement), construction of new buildings (new construction), and leaving buildings in their existing location and configuration (building to remain). The Master Plan Update also identifies goals and strategies to improve open space, mobility and parking, and sustainability and resiliency.

Project Location. The main campus, located at 1250 Bellflower Boulevard, encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west. The Master Plan Update also encompasses Beachside Village, which is a CSU-owned student residential complex located at 4835 Pacific Coast Highway, approximately 0.6 miles west of the main CSULB campus.

Project Alternatives. The EIR will recommend mitigation measures for any significant adverse environmental impacts resulting from the proposed actions evaluated in the EIR. The EIR will also define and analyze a reasonable range of alternatives to the proposed improvements that may be capable of avoiding or reducing significant impacts.

Probable Environmental Effects. An analysis of potential environmental effects is provided in the Initial Study prepared for the proposed project. Potential impacts associated with the proposed project that will be addressed in the Draft EIR include, but may not be limited to, the following:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology/Soils
- Greenhouse Gas Emissions
- Hydrology/Water Quality
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems

Reviewing Locations. This Notice of Preparation and the Initial Study may be accessed online at: www.csulb.edu/beach-building-services/california-environmental-quality-act-ceqa-compliance.

In addition, a limited number of hard copies of the Notice of Preparation and Initial Study can be provided to persons who are unable to access the online version. Please contact Melissa Soto at (562) 985-5127 or melissa.soto@csulb.edu to request this accommodation.

Virtual Open House. A virtual open house will be available throughout the 30-day public comment period. The virtual open house includes an overview of the project, an overview of the CEQA process, and a timeline for environment review for the proposed project. Comments can also be submitted through the virtual open house, and project documents including this notice and the Initial Study can be accessed in the virtual open house. Please access the virtual open house at: www.csulb-cmp-eir.com.

Public Review Period/Comment Period. This Notice of Preparation and Initial Study will be circulated for a 30-day public review and comment period, commencing on April 21, 2022, and concluding on May 20, 2022. This Notice of Preparation will be filed with the State Clearinghouse, filed with and posted by the Los Angeles County Clerk's office for a period of not less than 30 days, and published in the Long Beach Press-Telegram.

All written comments on the scope of the Draft EIR must be submitted by 11:59pm on May 20, 2022, and may be submitted in any of the following manners:

1. **The Virtual Open House**
   Access the virtual open house at: www.csulb-cmp-eir.com. Provide your scoping comments by clicking the Speech bubble for "Registration and Scoping Comments" at the table.

2. **In-Person**
   Provide your scoping comments in writing at the in-person scoping meeting held on May 4, 2022, from 5:30pm-7:30pm. The meeting will be held at The Pointe, located in the Walter Pyramid at CSULB (near Lot G11 at the southeast corner of E. Atherton Street and Merriam Way).

3. **Email: Melissa.Soto@csulb.edu**
   Please include "Master Plan Update EIR Comments" in the subject line.

4. **Mail**
   Melissa Soto, Program Planner
   California State University, Long Beach
   Office of Design + Construction Services
   1331 Palo Verde Avenue
   Long Beach, California 90815

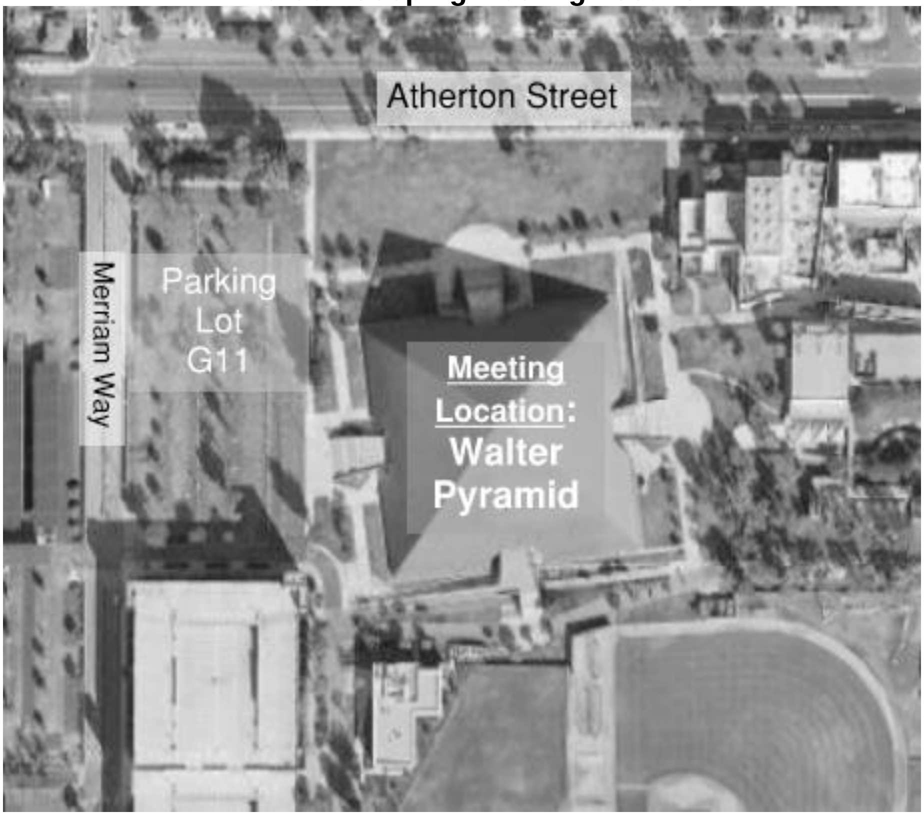
5. **Digital QR Code**
   Provide your scoping comments online by scanning the QR code below with your mobile device. To scan the code, open the camera app on your mobile phone and move your camera so that the QR code is clearly visible in the frame. Click on the QR code's URL, surveymonkey.com, when it pops up. Follow the instructions in the survey to provide your scoping comments online.

Scoping Meetings. Two public scoping meetings will be held to obtain input on the scope of the contents of the EIR, as well as to present information on the proposed project components. The meetings will consist of one in-person meeting and one virtual meeting to be hosted on an online platform. The meeting date and location information is as follows:

Virtual (Online) Meeting:
Date: Thursday, April 28, 2022
Time: 6:00pm-7:00pm
Location: Zoom Conference https://us06web.zoom.us/j/84052010155
Meeting ID: 840 5201 0155
Or join by phone at +1 (720) 707-2699 / Meeting ID: 840 5201 0155

In-Person Meeting:
Date: Wednesday, May 4, 2022
Time: 5:30pm-7:30pm
Location: The Pointe, located in the Walter Pyramid at CSULB. Free parking will be provided at Parking Lot G11 adjacent to the Walter Pyramid, located at 1792 Merriam Way. Please park in the spots reserved for the Scoping Meeting and follow the signs to The Pointe.

In-Person Scoping Meeting Location



Attendees are invited to call (562) 985-5127 at least 72 hours in advance of the meeting for more information, to arrange ADA accommodations and/or to request language translation support.

Initial Study

Initial Study

California State University, Long Beach
Master Plan Update

Lead Agency:

The California State University
Office of the Chancellor
401 Golden Shore
Long Beach, California 90802-4210

Prepared by:

Michael Baker International
801 S. Grand Avenue, Suite 250
Los Angeles, CA 90017

April 2022

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ACRONYMS AND ABBREVIATIONS

CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH_4	methane
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO_2	carbon dioxide
CSU	California State University
CSULB	California State University, Long Beach
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
FTES	full-time-equivalent students
GHG	greenhouse gases
LBWD	Long Beach Water Department
MRZ	Mineral Resource Zone
N_2O	nitrous oxide
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board
SENEL	Single Event Noise Exposure Limits
SMARA	Surface Mining and Reclamation Act
SRA	State Responsibility Area
State Route 1	Pacific Coast Highway
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service

1 PROJECT DESCRIPTION

1.1 Project Title

California State University, Long Beach Master Plan Update

1.2 Lead Agency Name and Address

The California State University
Office of the Chancellor
401 Golden Shore
Long Beach, California 90802-4210

1.3 Project Sponsor's Name and Address

California State University, Long Beach
Office of Design + Construction Services
1331 Palo Verde Avenue
Long Beach, California 90815

1.4 Contact Person, Email, and Phone Number

Melissa Soto, Program Planner
Melissa.Soto@csulb.edu
(562) 985-5127

1.5 Overview of the Project

Each of the 23 campuses within the California State University (CSU) system is required by the CSU Board of Trustees to prepare and periodically update a physical Master Plan. The Master Plan is intended to guide the physical campus development necessary to support the needs of the current student, faculty, and staff campus populations as well as projected student enrollment and campus population growth, which serves as the basis for determining long-term academic, administrative, student support, student housing, and athletic and recreational program space needs, in accordance with approved educational policies and objectives.[1]

California State University, Long Beach (CSULB) is proposing a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth and a campus population and physical development of the campus through the horizon year 2035 (Master Plan Update, proposed project, or project). The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs, thereby minimizing the need for net new developed square footage.

CSULB will prepare an Environmental Impact Report (EIR), as required of California's public universities by Public Resources Code (PRC) § 21080.09, to evaluate the environmental effects of the Master Plan Update. The Master Plan Update EIR will be a Program EIR for use in evaluating later development activities proposed as part of the Master Plan Update as well as a Project-level EIR for specific near-term projects.

1 California State University, State University Administrative Manual (SUAM), Section II, Physical Master Plan and Off-Campus Centers: Section 9007, Development of Physical Master Plan, 2020, available at: https://calstate.policystat.com/policy/8837634/latest#autoid-dgx6z, accessed April 1, 2022.

1.6 California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed Master Plan Update constitutes a project as defined by CEQA (California Public Resources Code Section 2100 et. seq.). Furthermore, as required by PRC § 21080.09, the CSU must conduct environmental review to evaluate the environmental effects of the proposed Master Plan Update. This Initial Study has been prepared to assist in that evaluation.

CEQA Guidelines Section 15367 states that a lead agency is "the public agency which has the principal responsibility for carrying out or approving a project." The Board of Trustees of the California State University is the lead agency responsible for compliance with CEQA for the proposed project.

The potential for significant adverse environmental impacts will be determined based on the nature and scope of the proposed Master Plan Update, the preliminary evaluation of the environmental factors in the Initial Study environmental checklist (provided in Section 2 of this document), and any comments received from public agencies, other stakeholders, and members of the public during the scoping period. Those factors will become the focus of detailed analysis in the EIR to determine the nature and extent of any potential environmental impacts and establish appropriate mitigation measures for those impacts determined to be significant. The EIR will also include an evaluation of alternatives to the proposed project that would reduce or avoid significant impacts, including a No Project Alternative.

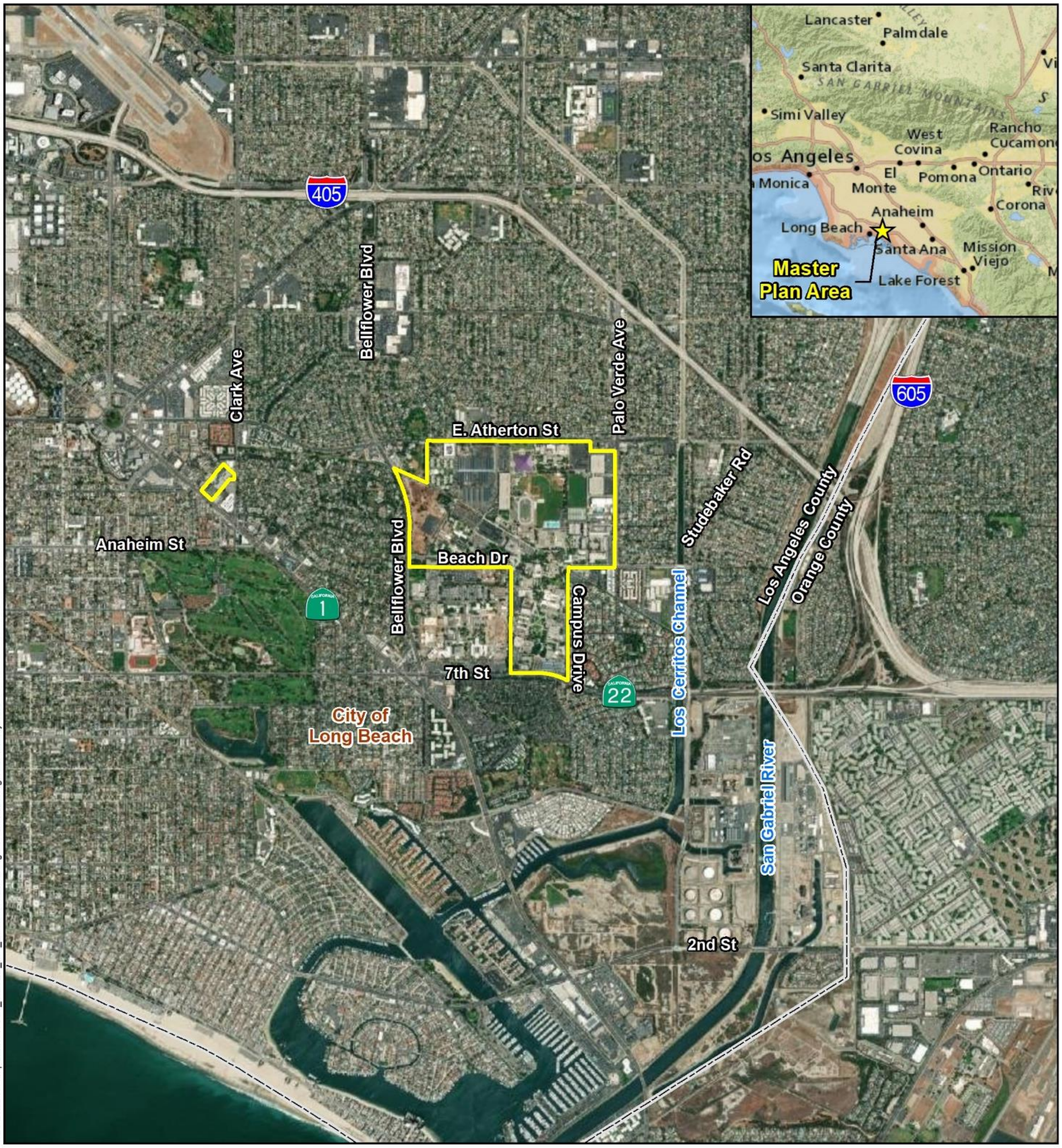
Environmental factors for which no significant adverse environmental impacts are expected to occur, based on the Initial Study analysis, will not be carried forward for detailed analysis in the EIR.

1.7 Project Location and Setting

The CSULB campus is located within the governmental jurisdictional boundary of the City of Long Beach, in southern Los Angeles County, California. The City of Long Beach is bordered by the cities of Paramount and Lakewood to the north; the Pacific Ocean to the south; the cities of Hawaiian Gardens, Cypress, and Los Alamitos, the unincorporated community of Rossmoor, and the city of Seal Beach in Orange County to the east; and the cities of Los Angeles, Carson, and Compton to the west. Figure 1 shows the regional location of the CSULB campus.

1.7.1 California State University, Long Beach Campus

The CSULB campus encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west, as shown in Figure 2. Primary vehicular access to the campus is via Earl Warren Drive and Merriam Way from East Atherton Street; State University Drive from Palo Verde Avenue; West Campus Drive and East Campus Drive from East 7th Street; and Beach Drive from Bellflower Boulevard. Interstate 405 runs east-west north of the campus and provides regional access to the campus via access ramps at Palo Verde Avenue and Bellflower Boulevard. State Route 22 provides direct access to East 7th Street just southeast of the campus. Interstate 605 terminates at Interstate 405 and State Route 22, approximately one mile east of the campus.



Legend

Campus Master Plan Boundary

County Boundary

0 1,500 3,000 Feet

Source: County of Los Angeles, Nearmap, ArcGIS Online

CALIFORNIA STATE UNIVERSITY, LONG BEACH CAMPUS MASTER PLAN UPDATE
INITIAL STUDY

Regional Location Map

Figure 1

Legend

Campus Master Plan Boundary

CALIFORNIA STATE UNIVERSITY, LONG BEACH CAMPUS MASTER PLAN UPDATE
INITIAL STUDY

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0 500 1,000 Feet

Source: County of Los Angeles, Nearmap, ArcGIS Online

Project Location Map

Figure 2

The CSULB campus comprises 84 buildings and eight colleges serving approximately 31,000 full-time-equivalent students (FTES).[2,3] Student housing, commons, dining uses, and student parking facilities are concentrated in the western section of the campus, while many public-facing programs, including athletics venues and the performing arts center, are located in the northern section of the campus. The eastern section of the campus contains a diverse array of facilities including the College of Engineering, Student Recreation and Wellness Center, and Campus Facilities and Maintenance. The central campus contains the main Administration Building-Brotman Hall, College of Business, College of Health and Human Services' Kinesiology Building, and student services facilities such as Student Health Services and Counseling. Most of the academic buildings on the campus are located in the southern campus, surrounding a traditional campus quadrangle. Additionally, Beachside Village is a CSU-owned student housing complex located approximately 0.6 miles west of the main CSULB campus. This off-campus complex comprises two three-story residence halls, a dining hall, and recreational amenities.

Landscaped and open space areas are provided throughout the campus in the form of quadrangles, plazas, courtyards, edges, corridors, and recreation fields. Vehicular circulation primarily occurs on public roadways around the perimeter of the campus, with smaller internal roadways providing access to parking areas. Pedestrian and bicycle pathways provide for non-motorized movement throughout the interior of the campus. Additionally, Bouton Creek Channel, a Los Angeles County Flood Control District channel, runs diagonally and southeasterly across the campus.

Puvungna is an approximately 22-acre parcel of land on the northwest border of the CSULB campus. This undeveloped section of the campus is part of the National Register-listed Puvungna Indian Villages Sites Historic District and is listed in the Native American Heritage Commission's Sacred Lands Inventory, in recognition of its historic, cultural, and religious significance. A restrictive covenant prohibiting development has been established on a significant portion of this site and is held in reserve for the future establishment of a permanent conservation easement for its perpetual protection and management.

1.7.2 Surrounding Land Uses

The CSULB campus is primarily surrounded by low-density residential neighborhoods to the north, east, south, and west. Medium-density residential and commercial uses are located near the northwestern, northeastern, and southeastern corners of the campus, as well as along Pacific Coast Highway (State Route 1) to the southwest of the campus. The 100-acre Veteran's Administration Medical Center complex is located adjacent to the southwestern campus boundary. Other uses in the surrounding area include Whaley Park, a city park, and Minnie Gant Elementary School, across Atherton Street, north of the CSULB campus; City of Long Beach Fire Department Station 22, near the northeast corner of the campus at the intersection of Atherton Street and Palo Verde Avenue; Sato Academy of Math & Science, a public high school, located approximately 700 feet southeast of the campus; and the Los Cerritos flood control channel, which runs north-south approximately 1,200 feet east of the campus, and the San Gabriel River, which runs north-south approximately 1,200 feet to the east of the Los Cerritos flood control channel.

2 Full-time equivalent student (FTES) is the unit of measurement used to convert class load to student enrollment. At CSULB, one undergraduate FTES is equal to 15 units. Thus, one undergraduate FTES is equal to one undergraduate student enrolled in 15 units or three undergraduate students each enrolled in 5 units. A related unit of measurement is "headcount." In the case of one student taking 15 units, the headcount is 1; in the case of three students collectively taking 15 units, the headcount is 3.

3 Based on 2019-2020 enrollment.

1.8 Project Background

The current Master Plan for the CSULB campus was approved in 2008 and guided campus development through the horizon year 2020. The 2008 Master Plan provided a framework for land use, development, open space, and circulation to accommodate projected enrollment of 31,000 FTE students on the campus. Components of the 2008 Master Plan included completion of the Hall of Science, renovation of Peterson Hall 2, additional student housing, and additional parking. A number of these projects have been implemented as originally proposed or with modifications addressed in addenda to the 2008 Master Plan EIR.

1.9 Project Purpose and Need

The goal of the Master Plan Update is to support and advance CSULB's mission, strategic vision, and values by guiding the physical development of the campus, and to accommodate changes in enrollment through the horizon year 2035. As previously discussed, Master Plans are intended to implement proposed improvements to accommodate a projected increase in student enrollment and corresponding campus population (which includes student, faculty, and staff). The projections serve as the basis for determining a campus's long-term space and infrastructure needs. Master Plans are based on annual academic year (AY) enrollment projections prepared by each campus as directed by the CSU Office of the Chancellor, which consults with the State of California to anticipate systemwide enrollment growth and associated funding in accordance with the CSU's educational mission according to California's Education Code.[4] CSULB has recently established a goal of increasing online programs and services in order to serve a larger proportion of its future enrollment, making it more convenient for students to attend virtual classes and reducing trips to campus.

The 2019-2020 AY is the most recent year of pre-pandemic in-person campus operations. CSULB enrolled approximately 31,000 FTES in AY 2019-2020, with approximately 27,000 FTES on-campus and the remainder receiving instruction remotely and pursuing educational experience off-campus. The projected enrollment for the Master Plan Update horizon year 2035 is approximately 36,000 FTES, with approximately 31,000 FTES anticipated to be on-campus. As such, the Master Plan Update has been prepared to accommodate 31,000 FTES on-campus. This represents a projected increase of approximately 5,000 FTES, including 4,000 FTES on-campus, compared to AY 2019-2020.

CSULB's enrollment projections for purposes of this Master Plan Update assume annual compounded growth of one percent throughout the life of the Master Plan, as directed by CSU's Office of the Chancellor, which consults with the State legislature to anticipate systemwide enrollment growth and associated funding. However, the future student enrollment and campus population growth projections in the Master Plan Update do not limit CSULB's future student enrollment or campus population. The projections represent CSULB's assumptions about future enrollment and campus population through horizon year 2035, which in turn serve as the basis for determining long-term space and infrastructure needs on the campus. The Master Plan Update defines a maximum development envelope and identifies necessary infrastructure and other physical upgrades for purposes of long-term planning and environmental analysis.

[4] California State University, State University Administrative Manual, Section VII, Five-Year Capital Improvement Program Procedures and Formats for Capital Outlay Submission: Section 9100.1, Basis for Major Capital Outlay and Five-Year Capital Improvement Program Submissions: 3. Full Time Equivalent Student Enrollment Allocations, available at: https://calstate.policystat.com/policy/6657509/latest/, accessed February 15, 2022.

1.10 Proposed Project Characteristics

1.10.1 Proposed Master Plan Update

The Master Plan Update is a long-range planning document that will guide physical development on the CSULB campus through the horizon year 2035. The Master Plan Update addresses CSULB's current and future needs, focusing less on physical growth and more on optimizing the existing physical assets of the campus. The Master Plan Update also identifies priority projects to be implemented in the near term. The primary strategies for implementing the Master Plan Update include renovation of existing buildings (renovation), demolition and replacement of existing buildings in the same physical location (replacement), construction of new buildings (new construction), and leaving buildings in their existing location and configuration (building to remain), as shown in Figure 3. The Master Plan Update also identifies goals and strategies to improve open space, mobility and parking, and sustainability and resiliency.

1.10.2 Campus Organization

The Master Plan Update organizes the CSULB campus into five districts according to existing geography and facilities as well as proposed programming. desired connectivity, and placemaking opportunities. The five districts include the South District, Central District, East District, North District, and West District, as shown in Figure 4. A brief description of each district is provided below.

South District

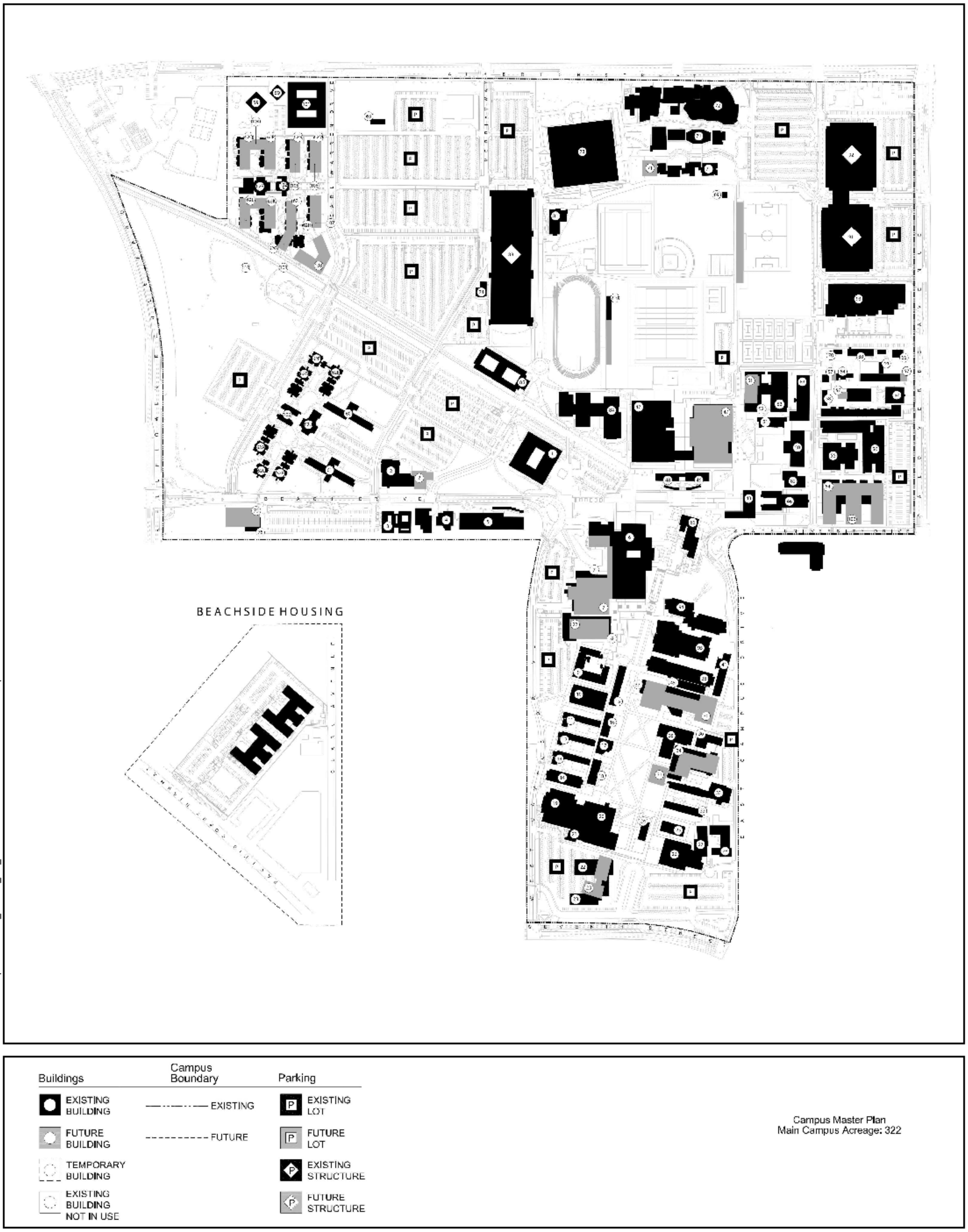
The South District primarily comprises the campus academic core and is the densest area of learning and student experience. Most of the campus's academic buildings, and therefore most faculty offices, study spaces, and instructional spaces, are located within the South District. In addition, the Shakarian Student Success Building and seven of the eight Colleges[5] are located here. The South District includes some of the most iconic buildings on the campus, including the McIntosh Humanities Building, University Theater, Psychology Building, and University Student Union. The academic buildings surround a large traditional collegiate quadrangle.

Academic uses will continue to be primarily located in the campus's South District. Improvements in the South District will focus on relocation, consolidation, and renovation of academic and student-centered programs. Replacement buildings for the College of the Arts and College of Education are proposed to bring additional academic programs and functions along with a reimagined, vibrant campus quadrangle. New development would focus on replacing aging and inefficient, low-density buildings.

Central District

The Central District encompasses a range of existing programming and facilities, including the CSULB's main Administration Building-Brotman Hall, College of Business, the College of Health and Human Services' Kinesiology Building, and key student services such as Student Health Services and the University Student Union, and is typically the most densely populated part of the campus. The recently renovated Horn Center is one of the campus' major classroom buildings with 10 new active learning classrooms, 2 large lecture halls, and the campus' largest computer

5 The eight Colleges include College of the Arts, College of Business, College of Education, College of Engineering, College of Health & Human Services, College of Liberal Arts, College of Natural Sciences & Mathematics, and College of Professional & International Education.



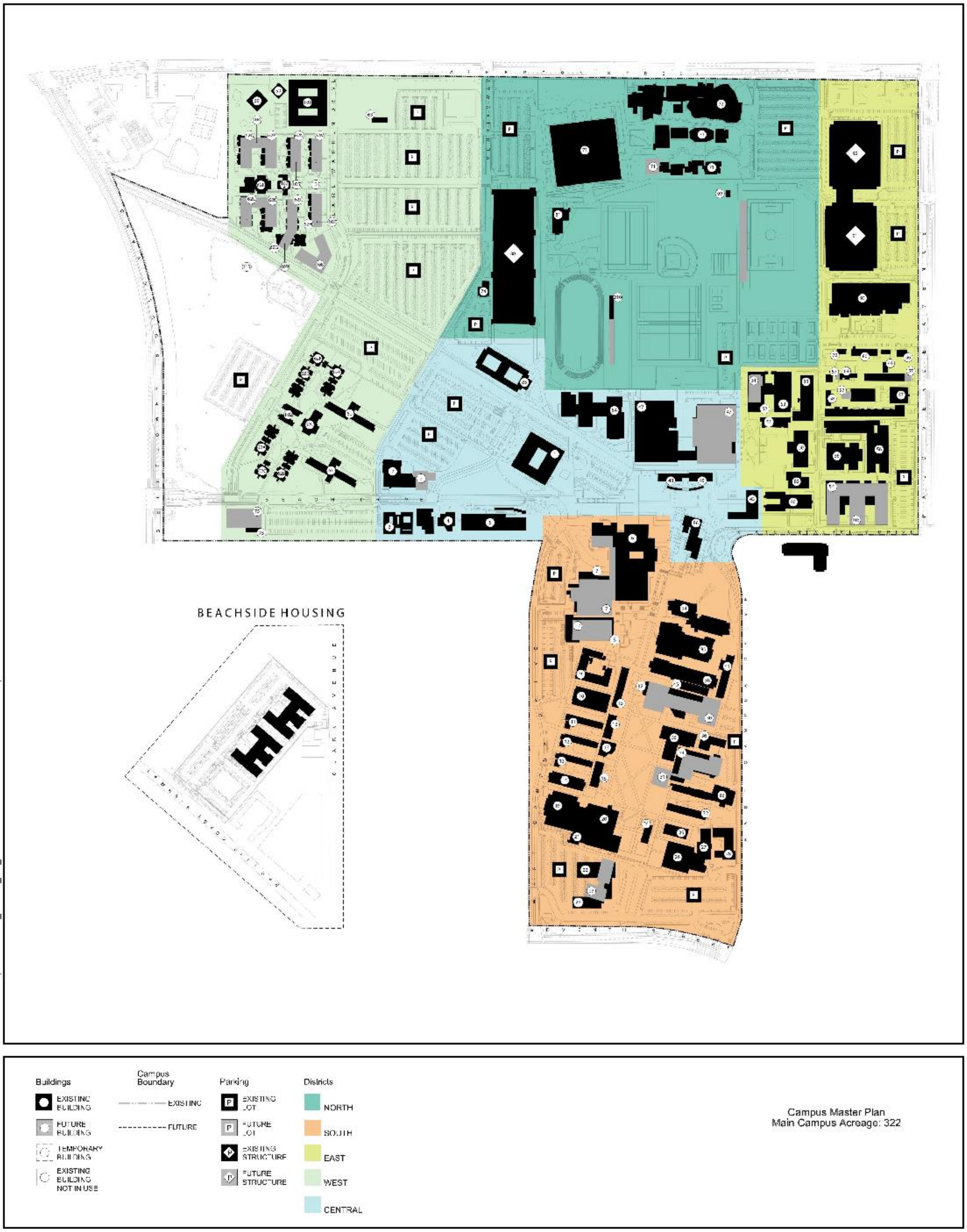
CALIFORNIA STATE UNIVERSITY, LONG BEACH CAMPUS MASTER PLAN UPDATE
INITIAL STUDY

Michael Baker INTERNATIONAL

Source: California State University Long Beach

Master Plan Update Map

Figure 3



CALIFORNIA STATE UNIVERSITY, LONG BEACH CAMPUS MASTER PLAN UPDATE
INITIAL STUDY

Michael Baker INTERNATIONAL

Campus Districts Map

Source: California State University Long Beach

Figure 4

lab. The recently renovated Kleefeld Contemporary Art Museum encompasses the western portion of the Horn Center Building.

The Central District is envisioned to be a vibrant academic and student-focused hub within the center of the campus, where the South District connects to north campus housing, athletics, and recreation programs. The proposed demolition of the existing Kinesiology building would allow for a new higher-density Kinesiology Building and new campus quadrangle directly adjacent to the Horn Center. The new Kinesiology Building would also provide space to consolidate various existing programs for the College of Health and Human Services and Athletics. Additionally, the Central District will include new open spaces and enhanced pedestrian links.

East District

The existing uses in the East District include academic programs such as the College of Engineering and departments within the College of the Arts as well as Beach Building Services and the Student Recreation and Wellness Center.

The East District is proposed as an intentional connection to the Central District through improved academic facilities and new graduate student and employee housing that would replace and renovate low-density, aging, and underutilized facilities. A six-story building for the College of Engineering is proposed to replace three low-rise buildings, which would provide opportunities for additional open space and a building site for future uses. Improved connectivity to other campus districts would be supported by pedestrian and bicycle network infrastructure.

North District

The North District is a public front door to the CSULB campus with many public-facing programs, including most athletics venues and the performing arts center. The North District encompasses a diverse range of existing programming and facilities, including the Walter Pyramid, the Carpenter Performing Arts Center, and the Music, and Dance departments. These programs are presently located north of a large concentration of athletics and sports fields, and are thus physically disconnected from many campus services and amenities.

The North District proposes to better serve and connect the programs in this area to the remainder of the campus through expanded amenities and enhanced pedestrian links. The North District would continue to support the CSULB's athletics programs and academic programs in the College of the Arts. Because visitors heavily access this district, key gateway and pedestrian improvements are proposed to improve pedestrian connectivity to other areas of the campus.

West District

The West District is the established housing district on the campus and is defined by the presence of the majority of campus student residence halls. To support on-campus residents, the West District is also home to two dining facilities Parkside Dining and the Hillside Dining halls. This district also includes a small, concentrated area of College of Health and Human Services academic buildings. Two primary campus vehicular entrances and a majority of the student parking facilities are located within the West District.

The West District serves as the starting and ending point to many students' days (for both residents and commuters). As such, improved connectivity with the core of the campus is considered critical to providing a convenient and safe experience for students.

Proposed improvements within the West District would enhance the student residential experience by expanding housing into higher-density facilities to accommodate additional beds, introducing new social and collaboration spaces, and improving pedestrian and bicycle connectivity within the district.

1.11 Required Permits and Approvals

Permits and other use authorizations that may be required to implement the proposed project may include, but may not be limited to, the following:

California State University, Board of Trustees

- Approval and adoption of the Master Plan Map
- Approval and certification of the CEQA environmental document
- Approval of schematic plans for future facilities and improvements

California State Fire Marshal

- Plan Review (Fire and Life Safety)

Division of the State Architect

- ADA Accessibility Compliance

Southern California Air Quality Control District

- Air quality construction and operational permits

Los Angeles County Flood Control District

- Issuance of permits for construction and/or other actions that affect Bouton Creek channel

City of Long Beach

- Issuance of encroachment permits for construction of utility and roadway improvements within City right-of-way
- Approval of new utility connections

CSU Office of Capital Planning, Design & Construction

- Administrative Project Approvals by CSU Board of Trustees

CSULB

- Building Code Plan Check
- Seismic Safety Structural Peer Review
- Capital Planning and/or Campus Planning Committee
- Campus Deputy Building Official
- Campus Departments – Environmental Health and Safety, Facilities Management, Disabled Student Services, Information and Telecommunication Services

2 ENVIRONMENTAL DETERMINATION

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology/Soils	☒ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☒ Population/Housing	☒ Public Services
☒ Recreation	☒ Transportation/Traffic	☒ Tribal Cultural Resources
☒ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the project. To each question, there are four possible responses:

- **No Impact.** The project would not have any measurable environmental impact on the environment.
- **Less Than Significant Impact**. The project would have the potential for impacting the environment, although this impact would be below established thresholds that are considered to be significant.
- **Less Than Significant Impact With Mitigation Incorporated**. The project would have the potential to generate impacts which may be considered a significant effect on the environment, although measures or changes to the development’s physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact**. The project would have impacts which are considered significant, and additional analysis is required to identify measures that could reduce these impacts to less than significant levels.

2.2 Environmental Determination

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Melissa Soto, Program Planner *Melissa Soto* 4/14/2022

Printed Name and Signature Date

3 INITIAL STUDY CHECKLIST

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Discussion

a) Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista?

No Impact. Scenic views or vistas are defined as panoramic public views of various natural features, including the ocean, striking or unusual natural terrain, or unique urban or historic features. Public access to these views may be from park lands, private and publicly owned sites, and public rights-of-way. No scenic vistas from public lands have been identified that include the CSULB campus and none are available from the CSULB campus. Therefore, no impact to scenic vistas would occur.

b) Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no designated state scenic highways near the main CSULB campus.[6] Pacific Coast Highway is located nearby and is eligible for inclusion in the state scenic highway system; however, it is not formally designated as of the time of this writing.[7] Views of the main CSULB campus are not accessible from Pacific Coast Highway. The CSULB Beachside Village student housing complex, a campus-owned property located approximately 0.6 miles west of the main CSULB campus, is situated adjacent to Pacific Coast Highway. However, there are no scenic resources located within this portion of Pacific Coast Highway that would be impacted during implementation of the Master Plan Update. Additionally, Beachside Village is not a historic building and all proposed improvements at this location would be interior building renovations,

6 California Department of Transportation, California State Scenic Highway System Map, available at: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed February 15, 2022.

7 Ibid.

which would not be visible from Pacific Coast Highway. Therefore, no impact related to scenic resources within a state scenic highway would occur.

c) Except as provided in Public Resources Code Section 21099, would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The CSULB campus is located in the urbanized area of the City of Long Beach. As a state-owned property, the CSULB campus is not subject to local regulations governing scenic quality. All proposed improvements would be designed to be compatible with existing CSULB buildings to remain. Upon approval of the Master Plan, all proposed improvements would be required to demonstrate consistency with design guidelines prepared as part of the Master Plan, at the time of project implementation. Therefore, impacts related to consistency with regulations governing scenic quality would be less than significant.

d) Except as provided in Public Resources Code Section 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Potentially Significant Impact. Proposed improvements implemented under the Master Plan Update may include new sources of outdoor light for new structures, wayfinding signage, safety lighting, and replacement lighting throughout the campus. All lighting would be designed in accordance with the CSU Outdoor Lighting Design Guide, which includes requirements for such lighting to be directed away from nearby light-sensitive uses, such as residences, and shielded to prevent sky glow and light spillover. Nonetheless, given the campus's proximity to residential neighborhoods, a detailed analysis of potential light and glare impacts will be included in the EIR.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. Neither the campus nor the surrounding area is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the "Important Farmland in California" map prepared by the California Resources Agency pursuant to the Farmland Mapping and Monitoring Program.[8] Therefore, the proposed project would not convert Farmland to a non-agricultural use and no impact would occur.

[8] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, California Important Farmland Finder, available at: https://maps.conservation.ca.gov/DLRP/CIFF/, accessed February 19, 2022.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. All proposed Master Plan projects would be implemented within the boundaries of the existing CSULB main campus and the Beachside Village property, none of which is zoned for agricultural use. Additionally, there are no Williamson Act contracts within Los Angeles County.[9] Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. No portion of the CSULB campus is zoned for forest land, timberland, or Timberland Production as defined in Public Resources Code Section 12220(g) and Government Code Section 4526. Therefore, the proposed project would not conflict with existing zoning for or cause a rezoning of forest land or timberland. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No portion of the CSULB campus is developed for forest land use or located adjacent to forest lands. Therefore, the proposed project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed in response to checklist question 3.2(a) above, no portion of the campus or surrounding area is identified as farmland or used for agricultural purposes. Additionally, as stated in response to checklist question 3.2(c), no portion of the campus or surrounding area is designated as forest land. Therefore, the proposed project would not change the existing environment in a way that would result in the conversion of Farmland to non-agricultural use or forest land to non-forest use, and no impact would occur.

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9 California Department of Conservation, Division of Land Resource Protection, The Williamson Act: 2018-2019 Status Report, available at: https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2020%20WA%20Status%20Report.pdf, accessed February 19, 2022.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) 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?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Potentially Significant Impact. The South Coast Air Quality Management District (SCAQMD) monitors air quality within the South Coast Air Basin, which includes the portion of Los Angeles County containing the CSULB campus. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. Implementation of these improvements would accommodate approximately 31,000 FTES on-campus for the horizon year 2035 and associated student, faculty, and staff campus population. An air quality technical report will be prepared for the proposed project to determine whether short-term construction and long-term operational air quality emissions would exceed the emissions budgeted for the campus in the applicable air quality management plan. A detailed analysis of this issue will be included in the EIR.

b) Would the project 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?

Potentially Significant Impact. Implementation of the Master Plan Update would generate air pollutants as a result of construction and operation-related activities. Short-term impacts may result from construction equipment emissions, such as graders, dump trucks, worker vehicle exhaust, and from fugitive dust during site preparation activities. Long-term operational impacts may result from emissions from vehicle trips to and from the campus generated by students, faculty, staff, and visitors, as well as from the operation of new and/or modified facilities. A technical report evaluating air quality will be prepared for the proposed project and will address the potential for cumulative air quality impacts. A detailed analysis of this issue will be included in the EIR.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. Some populations and land uses are considered more sensitive to air pollutants than others. The California Air Resources Board has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Some of these types of uses are located on and near the CSULB campus. The air quality technical report to be prepared for the Master Plan Update will evaluate the potential for sensitive receptors to be exposed to unhealthful pollutant concentrations during implementation of the Master Plan Update. A detailed analysis of this issue will be included in the EIR.

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

Less Than Significant Impact. Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of asphalt and architectural coatings, and other interior and exterior finishes. Although not anticipated, potential odors from these sources would be localized and generally confined to the immediate area surrounding the construction site. The Master Plan Update projects would be implemented utilizing standard construction techniques and odors would be typical of most construction sites, would be temporary in nature, and would not persist beyond the termination of construction activities. Additionally, all CSULB development projects are required to implement standard temporary construction controls for odors, including, but not limited to, protecting fresh air intakes to existing buildings from noxious fumes and vapors.[10] Therefore, odor impacts during construction would be less than significant.

Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairy farms, and fiberglass molding.[11] The campus does not currently contain these uses and none of these uses would be developed as part of implementation of the Master Plan Update. As discussed in Section 1.10, the primary strategies for implementing the Master Plan Update include renovation, replacement, and new construction at identified campus facilities, such as academic buildings and student housing facilities, while other buildings will be left in their existing location and configuration. The Master Plan Update also identifies goals and strategies to improve open space, mobility and parking, and sustainability and resiliency. Therefore, no impact related to odors would occur during operations.

10 California State University, State University Administrative Manual (SUAM), Section XI, Project Plan Development for Major Construction Projects (SUAM 9230-9237): Section 9235, Construction Document Phase of Project Development, available at: https://calstate.policystat.com/policy/6654819/latest#autoid-83nrq, accessed February 15, 2022.

11 South Coast Air Quality Management District, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, Table 2-1, Sources of Odor and Dust Complaints Received by the AQMD, May 2005, available at: https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document, accessed April 13, 2022.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Potentially Significant Impact. Sensitive plants include those listed as threatened or endangered, proposed for listing, or candidate for listing by the U.S. Fish and Wildlife Service (USFWS) and/or California Department of Fish and Wildlife (CDFW) or those listed by the California Native Plant Society (CNPS). Sensitive wildlife species are those species listed as threatened or endangered, proposed for listing, or candidate for listing by USFWS and/or CDFW, or considered special status by CDFW. Sensitive habitats are those that are regulated by USFWS, U.S. Army Corps of Engineers, and/or those considered sensitive by CDFW.

The majority of the CSULB campus is developed or landscaped open space (with the exception of the section of campus to which the restrictive covenant applies, on which no development would occur). Nonetheless, proposed new development and landscape improvements could affect sensitive species. A biological resources technical report will be prepared to evaluate potential impacts to sensitive and/or special status species. A detailed analysis of this issue will be included in the EIR.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. No riparian or sensitive natural community occurs within the boundaries of the CSULB campus.[12] Therefore, no impact to riparian or sensitive natural communities would occur with implementation of the proposed project.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potentially Significant Impact. The proposed project would include improvements to Bouton Creek, which is identified by the U.S. Fish and Wildlife Service as a wetland area.[13] However, Bouton Creek is an entirely channelized flood control channel that does not support wetland habitat. Nonetheless, the biological resources technical report prepared for the proposed project will describe Bouton Creek and its surroundings and assess the project's potential to result in impacts to wetlands. A detailed analysis of this issue will be included in the EIR.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Potentially Significant Impact. In an urban context, a wildlife migration corridor can be defined as a linear landscape feature of sufficient width and buffer to allow animal movement between two comparatively undisturbed habitat fragments, or between a habitat fragment and some vital resources, thereby encouraging population growth and diversity. The biological resources technical report prepared for the proposed project will assess the project's potential to affect wildlife movement in the area. A detailed analysis of this issue will be included in the EIR.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. Since the CSULB campus is an entity of the CSU, a state agency, and the campus is state-owned property, development on the campus is not subject to local policies or ordinances. Additionally, all development projects on the CSULB campus are required to implement standard temporary construction controls for natural resources protection, including, but not limited to, the protection of trees near construction activities.[14] Therefore, no impact related to local policies or

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12 U.S. Fish and Wildlife Service, National Wetlands Inventory Mapper, Riparian Habitat: https://www.fws.gov/wetlands/data/mapper.html, accessed February 17, 2022.

13 U.S. Fish and Wildlife Service, National Wetlands Mapper: https://www.fws.gov/wetlands/data/mapper.html, accessed February 17, 2022.

14 California State University, State University Administrative Manual (SUAM), Section XI, Project Plan Development for Major Construction Projects (SUAM 9230-9237): Section 9235, Construction Document Phase of Project Development, available at: https://calstate.policystat.com/policy/6654819/latest#autoid-83nrq, accessed February 15, 2022.

ordinances protecting biological resources would occur with implementation of the proposed project.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. No adopted Habitat Conservation or Natural Community Conservation Plans coincide with the boundaries of the CSULB campus.[15] Therefore, no impact related to such plans would occur with implementation of the Master Plan Update.

15 California Department of Fish and Wildlife, Natural Community Conservation Plans, Map, available at: https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans, accessed February 17, 2022.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☒	☐	☐	☐

Discussion

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Potentially Significant Impact. Some existing facilities on the campus are more than 50 years old as of 2022, which is the age at which the National Register of Historical Places and the California Register of Historical Resources recommend resources be evaluated for historic significance in accordance with applicable eligibility criteria. A historical resources technical report will be prepared for the Master Plan Update and will assess any potential impacts to such resources. A detailed analysis of this issue will be included in the EIR.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Potentially Significant Impact. As discussed in Section 1.7.1 of the Project Description, an undeveloped section of the northwestern campus is part of the National Register-listed Puvungna Indian Villages Sites Historic District and is listed in the Native American Heritage Commission's Sacred Lands Inventory, in recognition of its historic, cultural, and religious significance. A restrictive covenant prohibits development on a significant portion of this site, and the Master Plan Update does not propose any projects or improvements to this section of the campus. The restrictive covenant will be discussed in the Master Plan Update EIR and a cultural resources technical report will be prepared to assess the potential for impacts on other archaeological resources that may be present on the campus from ground-disturbing activities during construction of some of the proposed improvements identified in the Master Plan Update. A detailed analysis of this issue will be included in the EIR.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Potentially Significant Impact. Some of the proposed improvements under the Master Plan Update would involve ground-disturbing activities during construction. As discussed in response to checklist question 3.5(b), there is known archaeological sensitivity in the northwestern section of the CSULB campus, although development is prohibited in the area encompassed by the restrictive covenant. The archaeological resources technical report prepared for the proposed project will assess potential impacts related to disturbance of human remains outside of the area encompassed by the restrictive covenant. Additionally, the project would be required to comply with California health and Safety Code Section 7050.5 and California Public Resources Code

Section 5097 related to discovery of human remains. A detailed analysis of this issue will be included in the EIR.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☐	☐

Discussion

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Potentially Significant Impact. Sources of energy use associated with construction and operation of the proposed project include electricity, natural gas, and transportation fuel for vehicle trips and off-road construction equipment. An energy technical report will be prepared for the proposed project to assess energy consumption during short-term construction and long-term operational activities and identify the potential for wasteful, inefficient, or unnecessary consumption of resources. A detailed analysis of this issue will be included in the EIR.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Potentially Significant Impact. The energy technical report prepared for the proposed project will evaluate the project's consistency with applicable energy plans. A detailed analysis of this issue will be included in the EIR.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐

Discussion

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

Less Than Significant Impact. The CSULB campus is not located within a state-designated Alquist-Priolo Fault Hazard Zone.[16] The nearest Alquist-Priolo Fault Hazard Zone is the Newport-Inglewood fault, located approximately 0.6 miles and 0.1 miles southwest of the main

16 California Geological Survey, Earthquake Zones of Required Investigation Data Viewer, Search by Location, available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/, accessed February 16, 2022.

campus and the Beachside Village student housing complex, respectively. Additionally, the Los Alamitos fault is located approximately 1.5 miles and 2.3 miles north of the main campus and the Beachside Village student housing complex, respectively.[17] However, no active faults are known to cross the CSULB campus. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. The CSU Seismic Requirements, prepared by the Office of the Chancellor, include specific requirements for the construction of new buildings and the renovation of existing buildings.[18] All habitable structures would be designed and constructed in accordance with the latest version of the relevant building codes and all other applicable federal, state, and local codes relative to seismic criteria pursuant to the CSU Seismic Requirements. These building codes are designed to ensure safe construction. Compliance with existing regulations and adherence to the CSU Seismic Requirements would ensure that impacts related to fault rupture would be less than significant.

ii. Strong seismic ground shaking?

Less Than Significant Impact. The campus is located in a seismically active area, as is most of southern California, and is subject to strong seismic ground shaking. However, as discussed in response to checklist question 3.7(a)(i), all improvements implemented by the proposed project would be designed and constructed in accordance with the latest version of the relevant building codes and all other applicable federal, state, and local codes relative to seismic criteria pursuant to the CSU Seismic Requirements. Compliance with existing regulations and adherence to the CSU Seismic Requirements would ensure a less than significant impact related to strong seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The northeastern section of the CSULB main campus is located within an area identified as being susceptible to liquefaction.[19] As discussed in Sections 3.7(a)(i) and 3.7(a)(ii), all improvements implemented by the proposed project would be designed and constructed pursuant to the CSU Seismic Requirements. Per the CSU Seismic Requirements, site-specific geotechnical investigations are required for any new development on the campus to assess and classify the subsurface conditions at the site. Geotechnical investigations conducted for any future development or renovations proposed by the Master Plan Update are required to include consideration of all seismically induced site failure hazards, including liquefaction, differential settlement, lateral spreading, landslides, and surface faulting.[20] Additionally, the CSU has determined campus-specific seismic design ground motion parameters to be used for new and modification of existing buildings, which supersede those in the California Building Code.[21] Compliance with existing regulations and adherence to the CSU Seismic Requirements would ensure a less than significant impact related to liquefaction.

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17 California Geological Survey, Geo Hazards Data Viewer, Search by Location, available at: https://maps.conservation.ca.gov/geologichazards/#dataviewer, accessed February 16, 2022.
18 The California State University, Office of the Chancellor, *CSU Seismic Requirements*, March 2020.
19 California Geological Survey, Geo Hazards Data Viewer, Search by Location, available at: https://maps.conservation.ca.gov/geologichazards/#dataviewer, accessed February 16, 2022.
20 The California State University, Office of the Chancellor, *CSU Seismic Requirements*, March 2020.
21 Ibid.

iv. Landslides?

No Impact. The CSULB campus is not located in an area identified as being susceptible to landslides.[22] Therefore, no impact related to landslide would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Construction of the proposed project would include ground-disturbing activities, such as grading and excavation, which could result in the potential for erosion to occur at the individual development sites. Per the CSU State University Administrative Manual, all development projects on the CSULB campus are required to implement standard temporary construction controls for erosion and sediment control, including, but not limited to: trapping sediments before they leave the site using such techniques as check dams, sediment ponds, or siltation fences; preventing runoff from flowing over unprotected slopes; stabilizing disturbed areas; and removing mud from tires of each moving equipment.[23] Additionally, any proposed improvements that would disturb more than one acre of land would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) stipulating erosion control measures in compliance with the latest National Pollutant Discharge Elimination System (NPDES) permit requirements for storm water discharges. Compliance with existing regulations and adherence to the CSU standards for erosion control would ensure a less than significant impact.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As discussed in response to checklist question 3.7(a)(iii), all improvements implemented by the proposed project would be designed and constructed pursuant to the CSU Seismic Requirements, including the preparation of site-specific geotechnical investigations to assess and classify the subsurface conditions at individual development sites. Geotechnical investigations conducted for any future development or renovations proposed by the Master Plan Update are required to include consideration of all seismically induced site failure hazards, including liquefaction, differential settlement, lateral spreading, landslides, and surface faulting. Compliance with existing regulations and adherence to the CSU Seismic Requirements would ensure a less than significant impact related to unstable geologic units or soils.

d) Would the project be located on expansive soil, creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are clay-based soils that tend to expand (increase in volume) as they absorb water and shrink (lessen in volume) as water is drawn away. If soils consist of expansive clays, foundation movement and/or damage can occur if wetting and drying of the clay does not occur uniformly across the entire area. The geologic materials underlying the CSULB campus include marine deposits consisting of dense silty sand and gravel, and soft sands and silts mixed with some clay, which are not highly susceptible to expansion. Additionally, as previously discussed, all improvements implemented by the proposed project

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22 California Geological Survey, Geo Hazards Data Viewer, Search by Location, available at: https://maps.conservation.ca.gov/geologichazards/#dataviewer, accessed February 16, 2022.

23 California State University, State University Administrative Manual (SUAM), Section XI, Project Plan Development for Major Construction Projects (SUAM 9230-9237): Section 9235, Construction Document Phase of Project Development, available at: https://calstate.policystat.com/policy/6654819/latest#autoid-83nrq, accessed February 15, 2022.

would be designed and constructed pursuant to the CSU Seismic Requirements, including the preparation of site-specific geotechnical investigations to assess and classify the subsurface conditions at individual development sites. Compliance with existing regulations and adherence to the CSU Seismic Requirements would ensure a less than significant impact related to expansive soils.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The CSULB campus is served by existing sewer infrastructure. No septic tanks or alternative wastewater disposal systems are included as part of the proposed project. Therefore, no impact associated with the use of such systems would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. Some of the proposed improvements under the Master Plan Update would involve ground disturbing activities during construction. An analysis of paleontological resources will be prepared for the proposed project, which will include a paleontological resources sensitivity analysis, as well as assess the potential for impacts to such resources. A detailed analysis of this issue will be included in the EIR.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Discussion

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. GHGs, such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), keep the average surface temperature of the Earth close to 60-degrees Fahrenheit. In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), black carbon (the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass), and water vapor. CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion.

Temporary GHG emissions would be generated from use of off-road equipment and truck and worker vehicle trips during construction activities. During operations, the majority of permanent GHG emissions associated with land use development are typically related to vehicle trips and energy consumption. A GHG technical report will be prepared for the proposed project, which will assess the GHG emissions associated with project construction and operations. A detailed analysis of this issue will be included in the EIR.

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

Potentially Significant Impact. As discussed in response to checklist question 3.8(a), the proposed project would generate GHG emissions during construction and operations. The GHG technical report prepared for the proposed project will evaluate the project’s compliance with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. A detailed analysis of this issue will be included in the EIR.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Discussion

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. Construction activities would involve the temporary use, storage, and transport of hazardous materials typical of construction of buildings, such as asphalt, fuels, lubricants, paints, cleaners, and solvents. Incidental spills and leaks of such substances associated with routine use during construction represent a potential hazard to human health and the environment if not properly stored and handled. Construction contractors are required to comply with the provisions to properly manage hazardous substances and wastes that are included in standard CSU construction specifications, including working with the University's Office of Health & Safety to obtain information regarding known hazardous materials at the campus and halting all work in areas where previously unidentified materials are encountered, such as asbestos or lead based paint, until such materials are safely abated, as indicated in the State University Administrative Manual.[24]

All development projects on the CSULB campus are required to comply with existing federal, state, and local regulations related to the transport, use, and disposal of hazardous materials. Any disposal of hazardous materials would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility. Additionally, any proposed improvements that would disturb more than one acre of land would be required to prepare a Stormwater Pollution Prevention Plan, which would include measures to minimize the release of hazardous materials from construction sites via storm water runoff, in compliance with the latest National Pollutant Discharge Elimination System permit requirements for storm water discharges.

Operation of some improvements implemented pursuant to the Master Plan Update would involve the routine use of hazardous materials, such as cleaners and common chemicals used for landscaping and maintenance, similar to current operations. Additionally, colleges that require laboratories that use, store, and dispose of hazardous materials would abide by their respective hazardous materials plans, such as chemical hygiene plans and hazardous waste collection and labeling plans. The CSULB Environmental Compliance Program protects the campus through employee training programs, procedures, and policies designed to ensure the safe handling and storage of hazardous materials, and proper disposal of hazardous wastes. [25] The Environmental Compliance Program is also responsible for coordinating with federal, state, and local regulatory agencies to help CSULB achieve compliance with environmental regulations. Compliance with existing regulations and adherence to the CSU standards for the transport, use, and disposal of hazardous materials would ensure a less than significant impact.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. As discussed in response to checklist question 3.9(a), CSULB is required to comply with existing federal, state, and local regulations related to the transport, use, and disposal of hazardous materials. Any disposal of hazardous materials undertaken as part of Master Plan Update implementation would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility. Accident prevention and containment of hazardous materials are the responsibility of the construction contractors, and provisions to properly manage hazardous substances and wastes are included in standard CSU construction specifications, as indicated in the State University Administrative Manual. Additionally, any proposed improvements that would disturb more than one acre of land would be required to prepare an SWPPP to minimize the release of hazardous materials from construction sites via storm water runoff, in compliance with the latest NPDES permit requirements for storm water discharges.

Operation of improvements implemented pursuant to the Master Plan Update would involve the routine use of hazardous materials, such as cleaners and common chemicals used for landscaping and maintenance, similar to current operations. Additionally, colleges that require

[24] California State University, State University Administrative Manual (SUAM), Section XI, Project Plan Development for Major Construction Projects (SUAM 9230-9237): Section 9235, Construction Document Phase of Project Development, available at: https://calstate.policystat.com/policy/6654819/latest#autoid-83nrq, accessed February 15, 2022.

[25] CSULB, Environmental Compliance, available at: https://www.csulb.edu/beach-building-services/environmental-health-safety/environmental-compliance, accessed March 3, 2022.

laboratories that use, store, and dispose of hazardous materials would abide by their respective hazardous materials plans, such as chemical hygiene plans and hazardous waste collection and labeling plans. As discussed in response to checklist question 3.9(a), the CSULB Environmental Compliance Program protects the campus through employee training programs, procedures, and policies designed to ensure the safe handling and storage of hazardous materials, and proper disposal of hazardous wastes. The CSULB Environmental Compliance Program requires that departments maintain a copy of the Safety Data Sheets for each hazardous substance used in the department, which also include sections on accidental release measures.[26] Therefore, with compliance with existing regulations and adherence to the CSU standards for the safe handling of hazardous materials, impacts would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are two schools located within one-quarter mile of the CSULB campus. Minnie Gant Elementary School is located across Atherton Street, north of the CSULB campus, and Sato Academy of Mathematics and Science is located 0.15 miles southeast of the campus. All development pursuant to the Master Plan Update would occur within the existing boundaries of the CSULB main campus and the Beachside Village property. As discussed in response to checklist question 3.9(a), all development projects on the CSULB campus are required to comply with existing federal, state, and local regulations related to the transport, use, and disposal of hazardous materials. Additionally, operation of improvements implemented pursuant to the Master Plan Update would involve the routine use of hazardous materials, such as cleaners and common chemicals used for landscaping and maintenance, similar to current operations. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and impacts would be less than significant.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The CSULB campus is not included on any hazardous waste site lists including the Department of Toxic Substances Control's EnviroStor database, which includes CORTESE sites and the Environmental Protection Agency's database of regulated facilities, or other lists compiled pursuant to Section 65962.5 of the Government Code.[27,28] According to the State Water Resources Control Board's GeoTracker site, there is one closed case of a Leaking Underground Storage Tank located within the undeveloped section of the northwestern campus (Engineering Compound CSULB (T0603700100) 1250 Bellflower Blvd Long Beach, CA 90815).[29] The case has

26 CSULB, Hazard Communication Program, available at: https://www.csulb.edu/sites/default/files/groups/physical-planning-and-facilities-management/EHS/csulb_hazardous_communications_plan_2019.pdf, accessed March 3, 2022.

27 California Department of Toxic Substances Control, EnviroStor Database, Search by Map Location, available at: http://www.envirostor.dtsc.ca.gov/public/, accessed March 3, 2022.

28 United States Environmental Protection Agency, Envirofacts Database, available at: https://enviro.epa.gov/, accessed March 3, 2022.

29 California State Water Resources Control Board, GeoTracker Database, Search by Map Location, available at: http://geotracker.waterboards.ca.gov/map/, accessed March 3, 2022.

been closed since January 9, 1992 and no further action is required.[30] As such, the proposed project would not create a significant hazard to the public or the environment, and no impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The campus is not located within an airport land use plan; however, the campus is located within 2 miles of Long Beach Airport. According to the Long Beach Airport Noise Office, CNEL (Community Noise Equivalent Level) Contour Map, the campus is located outside of the 60-decibel CNEL contours of the Long Beach Airport and is not affected by aircraft noise.[31] Additionally, Long Beach Airport only permits increases in the number of air carrier flights if, as a group, the air carriers are below the noise budget, which was established based on noise data for the baseline year of 1989-1990.[32] As the Master Plan Update would involve implementing proposed improvements to campus facilities within the existing boundaries of the main campus and the Beachside Village property, no impact would occur related to a safety hazard or excessive noise for people residing or working in the project area.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The CSULB Emergency Operations Plan (EOP) details how CSULB manages and coordinates resources and personnel responding to emergency situations, including earthquakes, flooding, tsunami, and windstorms.[33] The plan is intended for use in response to large-scale, multi-jurisdictional, multi-agency emergencies or disasters. The CSULB campus also has an evacuation plan for campus-wide and localized evacuation to ensure that evacuation will be done in a systematic, controlled, and planned manner with the guidance and assistance of the University Police Department and campus Building Marshals.[34] The plan delegates responsibility to the Building Marshal Program, which has a staff of over 250 trained employees who volunteer to perform essential tasks during emergency situations. The plan also designates primary and secondary staging areas, as well as assembly areas, within the campus.

During construction of individual Master Plan projects, some primary, secondary, or assembly areas as well as campus routes may be fenced off or restricted for construction activities. However, in the event of an emergency requiring evacuation as specified in the EOP, the Law/Fire/Rescue Unit would coordinate the establishment of alternate routes, and the Building Marshals would ensure that building occupants go to the designated Evacuation Rally Point for their building or area. The campus would abide by the EOP and evacuation plan during

30 California State Water Resources Control Board, GeoTracker Database, ENGINEERING COMPOUND CSULB (T0603700100), available at: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603700100, accessed March 3, 2022.

31 Long Beach Airport, Long Beach Airport Noise Office, CNEL Contour Map, available at https://www.longbeach.gov/globalassets/lgb/community-information/noise-abatement/eir-noise-contour, accessed March 2, 2022

32 Ibid.

33 CSULB, Emergency Operations Plan 2020-2021, available at https://www.csulb.edu/sites/default/files/groups/university-police/csulb_eop_2020_web_version.pdf, accessed March 2, 2022

34 CSULB, Evacuation Plans, available at https://www.csulb.edu/university-police/evacuation-plans, accessed March 2, 2022

emergency situations throughout implementation of the proposed project, and the proposed project would not impair implementation of the evacuation plan.

Additionally, the Division of the State Architect and the State Fire Marshal would perform access compliance reviews and a fire and life safety reviews, respectively, prior to the approval of individual project drawings and specification documents.[35] Therefore, the Master Plan Update would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The CSULB campus is located in an urban, developed area surrounded by institutional, commercial, and residential uses. No wildlands occur within or near the CSULB campus. As such, no impacts related to risk of wildland fires would occur.

35 CSU (California State University), 2004, State University Administrative Manual (Section XI – Project Plan Development for Major Capital Construction Projects [Sections 9230-9237]), May 2004.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☒	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☒	☐	☐	☐

Discussion

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Potentially Significant Impact. Water quality standards and waste discharge requirements including the federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act) and the California Porter-Cologne Water Quality Control Act (Section 13000 et seq. of the California Water Code) are intended to protect the quality of waters within the State of California and require comprehensive water quality control plans be developed. The CSULB campus is located within the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB). Impacts related to water quality would fall under two general categories: short-term construction-related impacts and long-term operational impacts.

Construction activities have the potential to degrade water quality through the exposure of surface runoff to exposed soils, dust, and other debris, as well as from runoff from construction equipment.

Operational impacts may result from the increase in impermeable surfaces which could increase stormwater runoff.

The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. Construction related runoff and pollutants would be controlled with the implementation of BMPs including the stormwater pollution prevention plan (SWPPP) and erosion control plan. During project operation, surface water will be discharged via existing or new connections to the existing infrastructure. The proposed project is not anticipated to substantially degrade surface or ground water quality; however, a detailed analysis of this issue will be included in the EIR.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Potentially Significant Impact. The Long Beach Water Department (LBWD) primarily relies on the local Central Basin for groundwater, which accounts for approximately 50 percent of its supply.[36] The LBWD currently has water rights to pump approximately 33,000 acre-feet of groundwater from the Central Basin per year, and extracts groundwater through 27 active wells throughout the service area and then conveys the extracted groundwater through a series of collection pipelines to a centralized groundwater treatment plant. Once the raw groundwater is treated, it then gets pumped into the distribution system for consumption.

The Central Basin is adjudicated and provides the framework for groundwater management by apportioning pumping rights to certain parties and strictly limiting extractions to those apportioned rights. Limits on groundwater extraction and the replenishment of water by the Water Replenishment District of Southern California protects the basin.

The LBWD provides CSULB with reclaimed water that accounts for 50 percent of its water supply. The Master Plan Update would involve the renovation of existing buildings, demolition and replacement of existing buildings in the same physical location, and construction of some new buildings. These new facilities and improvements developed pursuant to the Master Plan Update have the potential to result in an increased water demand and impermeable surfaces, which may decrease groundwater supplies. A technical Water Supply Evaluation will be prepared for the proposed project and will evaluate the availability of water supplies for Master Plan buildout, including the potential to decrease groundwater supplies. A detailed analysis of this issue will be included in the EIR.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Potentially Significant Impact. As discussed in response to checklist question 3.7(b), construction of the proposed project would include ground-disturbing activities, such as grading and excavation, which could result in the potential for erosion to occur at the individual

36 Long Beach Water, 2020 Urban Water Management Plan, available at: https://lbwater.org/wp-content/uploads/2021/09/Long-Beach-Water-Department-2020-Urban-Water-Management-Plan.pdf, accessed March 3, 2022

development sites. All development projects on the CSULB campus are required to implement standard temporary construction controls for erosion and sediment control. Additionally, any proposed improvements that would disturb more than one acre of land would be required to prepare a SWPPP with erosion control measures in compliance with NPDES permit requirements. Nonetheless, construction activities could result in changes to drainage patterns. Additionally, the development of new or replacement structures or proposed pedestrian, bicycle, and vehicular circulation improvements could change the amount and locations of impervious surfaces at the CSULB campus. Therefore, a detailed analysis of this issue will be included in the EIR.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Potentially Significant Impact. As discussed in response to checklist question 3.10(c)(i), construction activities could result in changes in drainage patterns. Additionally, the development of new or replacement facilities or proposed pedestrian, bicycle, and vehicular circulation improvements could change the amount and locations of impervious surfaces at the CSULB campus. Therefore, a detailed analysis of this issue will be included in the EIR.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Potentially Significant Impact. Stormwater drainage on-campus is collected and conveyed into Bouton Creek Channel, a Los Angeles County Flood Control District channel that runs southeasterly through the CSULB campus. Construction activities could result in changes to drainage patterns, and the proposed improvements would require new or relocated connections to the existing stormwater drainage infrastructure. Therefore, a detailed analysis of this issue will be included in the EIR.

iv. Impede or redirect flood flows?

Less Than Significant Impact. A 100-year flood is a flood defined as having a 1.0 percent chance of occurring in any given year. The CSULB campus is located near several rivers and waterways: the Los Cerritos Channel less than one-quarter mile east, the San Gabriel River approximately 0.5 mile east, and Bouton Creek which passes directly through campus. The CSULB campus has the potential to be affected by flooding from the San Gabriel River and the Los Cerritos Channel; however, channel improvements have been completed in the last 50 years to improve water capacity. The CSULB campus has several low-lying areas that have had flooding in the past.[37]

The northeastern section of the main CSULB campus is identified as an Area with Reduced Flood Risk Due to Levee,[38] while the southwestern section of the main CSULB campus and the

37 CSULB. Emergency Operations Plan 2020-2021. Available at: https://www.csulb.edu/sites/default/files/groups/university-police/csulb_eop_2020_web_version.pdf.accessed March 3, 2022.

38 According to the Federal Emergency Management Agency Flood Insurance Rate Map, areas identified as "Reduced Flood Risk Due to Levee" are those areas that are protected from the 1-percent-annual-chance or greater flood hazard by a levee system that has been provisionally accredited.

Beachside Village property are identified as being within an Area of Minimal Flood Hazard.[39,40] As such, the CSULB campus and the surrounding area is not at substantial risk for flooding. The proposed project would also include new or relocated connections to the existing stormwater drainage infrastructure to help direct flows to the Bouton Creek Channel. The proposed project would not impede or redirect flood flows, and the impact would be less than significant.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. As discussed in response to checklist question 3.10(c)(iv), the CSULB campus and the surrounding area is not at substantial risk for flooding. Tsunamis are large ocean waves that are generated by major earthquakes, undersea landslides, volcanic eruptions, or other similar seismic activity. The campus is located approximately 2 miles northeast of the Pacific Ocean; however, tsunamis can travel upstream in coastal estuaries and rivers, extending the damaging wave farther inland.[41] Due to its proximity to the Los Cerritos Channel and Bouton Creek, run-up and inundation due to tsunamis could occur at the campus.[42]

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately upgradient of the campus. The Sepulveda Dam on the Los Angeles River and the Whittier Narrows Dam on the San Gabriel River are the closest dams to the CSULB campus, located approximately 33 miles northwest and approximately 15 miles northeast, respectively. According to the Army Corp of Engineers the danger of any flooding to the CSU Long Beach due to dam failure from either of these dams is remote as all floodwaters should be contained within flood control channels by the time it reaches the campus area.[43]

As discussed, the CSULB campus is not located in an area identified as being at risk of inundation from flooding or seiche. However, due to the locations of Bouton Creek and Los Cerritos Channel through and near the campus, the CSULB campus could be at risk for run-up inundation from a tsunami. The proposed project would include new or relocated connections to the existing stormwater drainage infrastructure to help direct flows to the Bouton Creek Channel. Therefore, the risk release of pollutants due to project inundation would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Potentially Significant Impact. As discussed in response to checklist question 3.10(a) above, the proposed project would be required to comply with and obtain a NPDES MS4 Permit from the RWQCB for stormwater control to minimize the discharge of pollutants. Additionally, any proposed

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39 The CSULB Emergency Operations Plan (EOP) 2020-2021 was approved in August 2020. The EOP states that the CSULB campus is identified by the Federal Emergency Management Agency (FEMA) as being located in Zone X, which indicates an area where the annual flood risk is between one percent and 0.2 percent. However, FEMA issued an updated Flood Insurance Rate Map for the area containing the CSULB campus effective April 2021, which identifies the flood risks on the campus as "Reduced Flood Risk Due to Levee" and "Area of Minimal Flood Hazard". Thus, the description of the applicable flood hazards for the CSULB campus in this Initial Study is based on the most current flood hazard information available from FEMA.

40 Federal Emergency Management Agency, National Flood Hazard Layer Viewer, Flood Insurance Rate Map, search by location, available at: https://hazards-fema.maps.arcgis.com/, accessed March 3, 2022.

41 CSULB. Emergency Operations Plan 2020-2021. Available at: https://www.csulb.edu/sites/default/files/groups/university-police/csulb_eop_2020_web_version.pdf, accessed March 3, 2022.

42 Ibid.

43 Ibid.

improvements that would disturb more than one acre of land would be required to prepare a SWPPP with erosion control measures in compliance with NPDES permit requirements. Operational impacts may result from the increase in impermeable surfaces which could increase stormwater runoff and impact water quality on campus. Therefore, the proposed project has the potential to conflict with or obstruct implementation of the water quality control plan. A detailed analysis of this issue will be included in the EIR.

As discussed in response to checklist question 3.10(b) above, new facilities and improvements developed pursuant to the Master Plan Update have the potential to result in an increased water demand and impermeable surfaces, which may decrease groundwater supplies. Therefore, the proposed project has the potential to conflict with or obstruct implementation of the groundwater management plan. A detailed analysis of this issue will be included in the EIR.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

a) Would the project physically divide an established community?

No Impact. The CSULB campus is a developed campus that comprises 84 buildings including student housing, commons, dining uses, athletic venues, performing arts centers, parking facilities, landscaped and open space areas, and an undeveloped section of the northwestern campus that has a restrictive covenant prohibiting development. The Master Plan Update would involve implementing proposed improvements to campus facilities including renovation, replacement, and new construction, as well as improvements to landscaping and open space, enhanced sustainability and resiliency operational features, and improved mobility and parking. All development pursuant to the Master Plan Update would occur within the CSULB main campus and at Beachside Village, approximately 0.6 miles west of the campus. Any construction activities would be temporary and would not encroach upon existing neighborhoods or the surrounding community. Additionally, proposed pedestrian, bicycle, and vehicular circulation improvements would occur within the existing boundaries of the CSULB main campus and the Beachside Village property.

The on-campus community consists of students (undergraduate and graduate), faculty, and staff. Implementation of the proposed improvements under the Master Plan Update could temporarily impact travel within and use of on-campus facilities. Development under the Master Plan Update would occur in phases over the planning period in order to maintain all campus functions by developing areas of campus at appropriate and strategic times. Overall, the Master Plan Update would support and advance the CSULB mission, vision, and values by guiding the physical development of the campus and to accommodate changes in enrollment through the horizon year 2035, and would not divide any established community. Therefore, the proposed project would not physically divide an established community, and no impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. CSULB is an entity of the CSU, and the campus is state-owned property and therefore campus development is not subject to local land use policies or regulations. Instead, campus development is required to comply with the official adopted master plan map and the design guidelines, development standards, and other development assumptions set forth in the Master Plan, which serves as a guidance document, as well as other official adopted CSU and campus policies governing land use. Nonetheless, CSULB considers aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, although it is not bound by those plans and policies in its planning efforts. CSULB communicates with local organizations, associations, and elected representatives about planning efforts and considers community input.

Some proposed improvements would occur on the periphery of the campus, along Palo Verde Avenue and East Campus Drive to the east. Development, including operation, of proposed Master Plan Update projects would be compatible with existing land uses in the areas surrounding the main campus and the Beachside Village property, including commercial uses, public facilities, and low- and medium-density residential neighborhoods. Additionally, implementation of the Master Plan Update would be consistent with the City of Long Beach's General Plan Land Use Element strategies to "work with students, faculty and alumni from California State University Long Beach and other emerging employment sectors of interest to local students" (LU Policy 5-3), and "work with students, faculty and alumni from California State University, Long Beach and other higher educational institutions to encourage the development of housing to meet student housing needs and housing needs of recent graduates" (LU Policy 12-7).[44] Therefore, no impact related to consistency with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect would occur.

44 City of Long Beach, Development Services, General Plan – Land Use Element, available at: https://www.longbeach.gov/globalassets/lbds/media-library/documents/planning/advance/lueude/land-use-element-final-adopted-december-2019, accessed March 3, 2022.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. California's Surface Mining and Reclamation Act of 1975 (SMARA) requires the State Geologist to classify land into mineral resource zones based on the known or inferred mineral resource potential of that land. The California Department of Conservation's Mineral Resources Program provides data about California's varied non-fuel mineral resources (such as metals and industrial minerals), naturally occurring mineral hazards (such as asbestos, radon, and mercury), and information about active and historic mining activities throughout the state.[45] Classification is completed by the State Geologist into Mineral Resource Zones (MRZ) wherein lands classified MRZ-1 are areas where geologic information indicates no significant mineral deposits are present, lands classified MRZ-2 are areas that contain identified mineral resources, lands classified MRZ-3 are areas of undetermined mineral resource significance, and lands classified MRZ-4 are areas of unknown mineral resource potential.[46]

According to the California Department of Conservation CGS Information Warehouse: Mineral Land Classification data mapper, the CSULB campus is located on lands classified MRZ-3 and lands classified MRZ-4.[47] It is not located on lands classified as MR-2, which are areas that contain identified mineral resources. Additionally, the CSULB campus does not contain any oil wells, and no oil extraction occurs within the campus.[48] Historical uses of the CSULB campus have not included mineral extraction, nor does it currently support mineral extraction. In addition, the proposed project does not propose any mineral extraction activities. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state, and no impact would occur.

45 California Department of Conservation, 2019, The California Mineral Resources Program, available at: https://www.conservation.ca.gov/cgs/mrp, accessed March 2, 2022.

46 California Department of Conservation, n.d., Guidelines for Classification and Designation of Mineral Lands, available at: https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf, accessed March 2, 2022.

47 California Department of Conservation, Generalized Aggregate Resource Classification Map, Orange County – Temescal Valley and Adjacent Production – Consumption Regions, 1981, accessed March 2, 2022.

48 California Department of Conservation, Geologic Energy Management Division's (CalGEM) Well Finder, available at: https://maps.conservation.ca.gov/doggr/wellfinder/#openModal/-118.10827/33.78270/16, accessed March 2, 2022.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. As described in response to checklist question 3.12(a), the CSULB campus is not located on lands classified as MR-2, which are areas that contain identified mineral resources. Additionally, the CSULB campus does not contain any oil wells, and no oil extraction occurs within the campus. According to the City of Long Beach General Plan Conservation Element, the City's oil deposits are abundant in tideland areas, with the major concentration contained in Wilmington Field, located west of the Los Angeles River, approximately 5 miles west of the campus. The Master Plan Update would involve proposed improvements to campus facilities and would not affect any existing oil, gas, or other mineral resource recovery facilities. No impact would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project 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?	☐	☐	☐	☒

Discussion

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?

Potentially Significant Impact. Construction activities have the potential to generate noise levels that exceed applicable standards in proximity to sensitive noise receptors, such as residential uses. The Master Plan Update would involve proposed improvements to campus facilities including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. During project operation, the locations of new facilities may change the location of mobile noise sources, such as vehicles and people gathering. A noise and vibration technical report will be prepared for the proposed project to assess the potential for short-term and long-term increases in noise levels and any associated impacts. A detailed analysis of this issue will be included in the EIR.

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

Potentially Significant Impact. Construction activities associated with the proposed project may generate ground-borne vibration from use of heavy equipment. The noise and vibration technical report prepared for the proposed project will evaluate the potential for groundborne noise and vibration, as well as any associated impacts. A detailed analysis of this issue will be included in the EIR.

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 Impact. As discussed in response to checklist question 3.9(e), the campus is not located within an airport land use plan; however, the campus is located within 2 miles of Long Beach Airport. According to the Long Beach Airport Noise Office, CNEL (Community Noise Equivalent Level) Contour Map, the campus is located outside of the 60 decibel CNEL contours of the Long Beach Airport and is not affected by aircraft noise.[49] The City of Long Beach also has an Airport Noise Compatibility Ordinance (Municipal Code Chapter 16.43) which regulates Maximum SENEL (Single Event Noise Exposure Limits) limits, prohibited activities, cumulative noise limits (CNEL) and noise budgets, compliance with noise budgets, violation enforcement, general exemptions, and flight limits among other things.[50] Additionally, Long Beach Airport only permits increases in the number of air carrier flights if, as a group, the air carriers are below the noise budget, which was established based on noise data for the baseline year of 1989-1990.[51] As the Master Plan Update would involve proposed improvements to campus facilities within the existing boundaries of the main campus and the Beachside Village property, no impact would occur related to excessive noise for people residing or working in the project area.

[49] Long Beach Airport, Long Beach Airport Noise Office, CNEL Contour Map, available at https://www.longbeach.gov/globalassets/lgb/community-information/noise-abatement/eir-noise-contour, accessed March 2, 2022

[50] Long Beach Airport, Long Beach Airport Noise Office, Noise Abatement Frequently Asked Questions, available at https://www.longbeach.gov/lgb/community-information/noise-abatement/faq/, accessed March 2, 2022

[51] Ibid.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☒	☐	☐	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☒	☐	☐	☐

Discussion

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Potentially Significant Impact. The proposed project be developed pursuant to the Master Plan Update and would include renovation, demolition, and new construction of buildings. The Master Plan Update does project an increase in FTES, although this is not considered unplanned growth. Nonetheless, a detailed analysis of this issue will be included in the EIR.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including increasing housing capacity through the construction of higher-density facilities and accommodating additional beds for students and staff. The Master Plan Update does not include the displacement of any existing housing or people. Nonetheless, a detailed analysis of the potential impacts associated with the construction and operation of proposed new and replacement housing will be included in the EIR.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	☒	☐	☐	☐
ii) Police protection?	☒	☐	☐	☐
ii) Schools?	☒	☐	☐	☐
iv) Parks?	☒	☐	☐	☐
v) Other public facilities?	☒	☐	☐	☐

Discussion

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Potentially Significant Impact. The Long Beach Fire Department would provide fire protection services to the CSULB campus. Fire Station No. 22 is located at 6340 Atherton Street at the northeast corner of campus. The proposed project would implement improvements identified in the Master Plan Update, which includes renovation, demolition, and new construction of buildings. As previously discussed, the Master Plan Update does project an increase in FTES. As such, the level of increase in demand for new fire protection facilities and whether the construction of these facilities would cause significant impacts to maintain acceptable service ratios, response times, or other performance objectives will be further evaluated in the EIR.

ii. Police protection?

Potentially Significant Impact. The University Police Department would provide police protection services to the CSULB campus. The University Police Department is located at the eastern side of campus. A substation is also located at the University Student Union on the second floor. The University Police Department has a mutual aid agreement with the Long Beach Police Department. The closest station to the campus is the East Division located at 3800 E Willow Street approximately 1.8 miles northwest from the CSULB campus. The proposed project would implement improvements identified in the Master Plan Update, which includes renovation, demolition, and new construction of buildings. As previously discussed, the Master Plan Update does project an increase in FTES. As such, the level of increase in demand resulting in the need for new police protection facilities and whether the construction of these facilities would cause significant impacts to maintain acceptable service ratios, response times, or other performance objectives will be further evaluated in the EIR.

iii. Schools?

Potentially Significant Impact. The Long Beach Unified School District serves the school-age population at the CSULB campus. The Master Plan Update would involve implementing proposed improvements to campus facilities as identified in the Master Plan Update, including expanding housing into higher-density facilities and providing additional beds for students and staff. Expanding housing may result in an increase in students and staff with families that could increase the enrollment at Long Beach Unified School District schools. A detailed analysis of this issue will be included in the EIR.

iv. Parks?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including improvements to open space and CSULB facilities on the main campus and at the Beachside Village property. Although improvements to these on-campus facilities would reduce the use of neighborhood and regional parks by student, the Master Plan Update would also expand housing into higher-density facilities to accommodate additional beds for students and staff. Expanding housing may result in an increase in the use of existing neighborhood and regional parks or other recreational facilities in the area by future residents. A detailed analysis of this issue will be included in the EIR.

v. Other public facilities?

Potentially Significant Impact. The proposed project be developed pursuant to the Master Plan Update and include renovation, demolition, and new construction of buildings. The proposed project would implement improvements identified in the Master Plan Update, which includes renovation, demolition, and new construction of buildings. As previously discussed, the Master Plan Update does project an increase in FTES over projections in the 2008 Master Plan and over 2019-2020 enrollment levels, as well as an increase in associated faculty and staff campus populations. As such, an increase in demand for public facilities including libraries may result. As such, the level of increase in demand for other public facilities and whether the construction of these facilities would cause significant impacts to maintain acceptable service ratios, response times, or other performance objectives will be further evaluated in the EIR.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☒	☐	☐	☐

Discussion

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including expanding housing into higher-density facilities and accommodating additional beds for students and staff. Expanding housing may result in an increase in the use of existing neighborhood and regional parks or other recreational facilities in the area by future residents. A detailed analysis of this issue will be included in the EIR.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space. These improvements include campus recreational facilities. A detailed analysis of this issue will be included in the EIR.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
d) Result in inadequate emergency access?	☒	☐	☐	☐

Discussion

a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?

Potentially Significant Impact. The proposed project would include improvements to mobility and parking and would enhance connectivity within the campus through pedestrian and bicycle network infrastructure. A transportation impact assessment technical report will be prepared for the proposed project to evaluate whether the proposed improvements conflict with a program plan, ordinance or policy addressing the circulation system. A detailed analysis of this issue will be included in the EIR.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. Implementation of these improvements would accommodate approximately 31,000 FTES on-campus for the horizon year 2035. The transportation impact assessment technical report will evaluate the proposed project's potential to generate vehicle miles traveled and its impact on vehicle miles traveled. A detailed analysis of this issue will be included in the EIR.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. These improvements have the potential to increase hazards due to vehicular network changes, pedestrian and bicycle path improvements, and the configuration of buildings as it relates to the circulation system on campus. Thus, the transportation impact assessment technical report will evaluate the potential for increased hazards due to a geometric design feature. A detailed analysis of this issue will be included in the EIR.

d) Would the project result in inadequate emergency access?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. Construction of the proposed improvements may require temporary lane closures for project-level activities such as utilities connections or materials deliveries. The proposed project would also result in vehicular network changes and pedestrian and bicycle path improvements that may result in changes related to emergency ingress, egress, and routes. Thus, the transportation impact assessment technical report will evaluate emergency access, and a detailed analysis of this issue will be included in the EIR.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☒	☐	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☒	☐	☐	☐

Discussion

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Potentially Significant Impact. As discussed in Section 1.7.1 of the Project Description, an undeveloped section of the northwestern campus is part of the National Register-listed Puvungna Indian Villages Sites historic district and is listed in the Native American Heritage Commission’s Sacred Lands Inventory, in recognition of its historic, cultural, and religious significance. A restrictive covenant prohibits development on the section of campus to which the restrictive covenant applies, and, as such, the Master Plan Update does not propose any projects or improvements to this section of the campus. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. The proposed improvements would include ground disturbing activities during construction, which have the potential to impact unknown cultural resources, including tribal cultural resources. The cultural resources technical report prepared for the proposed project will assess potential impacts to tribal cultural resources. A detailed analysis of this issue will be included in the EIR.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Potentially Significant Impact. The Master Plan Update would involve proposed improvements to campus facilities, including renovation, replacement, and new construction. The Master Plan Update also identifies goals and strategies to improve open space, sustainability and resiliency, and mobility and parking. The proposed improvements would include ground disturbing activities during construction, which have the potential to impact unknown cultural resources, including tribal cultural resources. Pursuant to Assembly Bill 52, CSULB will notify California Native American tribes known to have interest in the area to determine project impacts and mitigation measures. The cultural resources technical report prepared for the proposed project will assess potential impacts to tribal cultural resources and will outline the AB 52 consultation efforts conducted for the Master Plan Update. A detailed analysis of this issue will be included in the EIR.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☒	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☒	☐	☐	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☒	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☒	☐	☐	☐

Discussion

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Potentially Significant Impact. The proposed project would include renovation of existing buildings, demolition and replacement of existing buildings in the same physical location, and construction of some new buildings. These proposed new facilities and improvements developed pursuant to the Master Plan Update could result in expanded use of utilities and services systems and require new and/or relocated utility connections. The Long Beach Water Department provides water service and wastewater infrastructure, and the Los Angeles County Sanitation District provides sewer and wastewater treatment services to the CSULB campus. Stormwater drainage is collected on on-campus facilities and conveyed into Bouton Creek Channel, a Los Angeles County Flood Control District channel that runs southeasterly through the CSULB campus. Electric power is supplied by Southern California Edison and natural gas is supplied by the City of Long Beach Department of General Services. Additionally, the campus-wide telecommunications infrastructure was upgraded in 2005. The proposed project includes the preparation of a Utility Master Plan, which will identify utility improvements throughout the CSULB campus. A detailed analysis of these issues will be included in the EIR.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Potentially Significant Impact. As previously discussed, the proposed project would be developed pursuant to the Master Plan Update and include renovation, demolition, and new construction of buildings. An analysis will be prepared to evaluate the proposed water usage resulting from operation of proposed new facilities and improvements and determine if sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. A detailed analysis will be included in the EIR.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Potentially Significant Impact. As previously discussed, the proposed project would be developed pursuant to the Master Plan Update and include renovation, demolition, and new construction of buildings. An analysis will be prepared to evaluate the proposed wastewater generation resulting from operation of proposed new facilities and improvements and determine if the Long Beach Water Department and the Los Angeles County Sanitation District that serve the project has adequate capacity to serve the project's projected demand in addition to the providers' existing commitments. A detailed analysis will be included in the EIR.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Potentially Significant Impact. As previously discussed, the proposed project would be developed pursuant to the Master Plan Update and include renovation, demolition, and new construction of buildings. Solid waste is collected on campus for recycling, reuse, waste-to-energy, and/or disposal. Recyclable and specified solid wastes are transported by private contractors to the Southeast Resource Recovery Facility in Long Beach for recycling or solid waste-to-energy conversion. Solid waste that cannot be diverted is transported to the Puente Hills landfill for disposal. A detailed analysis of the proposed solid waste generation and diversion rates for the CSULB campus and determination if the project would exceed State or local standards, the capacity of local infrastructure, or impair the attainment of solid waste reduction goals will be included in the EIR.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Potentially Significant Impact. The CSULB campus has a comprehensive "Waste Not" recycling program that aims to eliminate campus waste by 2030 by focusing on reducing wasteful practices and improving recycling infrastructure across the campus. Program implementation includes the installation of new recycling bins inside and outside of buildings, a comprehensive communications and outreach plan, and student and staff training.[52] Further analysis of the

[52] CSULB. Waste Not. Available at: https://www.csulb.edu/sustainability/waste-not, accessed on March 2, 2022.

proposed project's compliance with this program and solid waste management and reduction regulations during construction and operation will be evaluated in the EIR.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program, the CSULB campus is not located in or near a State Responsibility Area (SRA).[53] The nearest SRA to the CSULB campus is located approximately 11 miles northeast. In addition, as it is located in an urbanized area, the CSULB campus does not contain lands designated as Very High Fire Hazard Severity Zones. Therefore, no impact would occur.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As previously stated, the CSULB campus is not located in or near an SRA and does not contain lands designated as Very High Fire Hazard Severity Zones. Therefore, no impact would occur.

[53] California Department of Forestry and Fire Protection, Fire and Resource Assessment Program, Fire Hazard Severity Zone Viewer, available at: https://egis.fire.ca.gov/FHSZ/, accessed February 22, 2022.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. As previously stated, the CSULB campus is not located in or near an SRA and does not contain lands designated as Very High Fire Hazard Severity Zones. Therefore, no impact would occur.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. As stated in above in response to checklist question 3.20(a), the CSULB campus is not located in or near an SRA and does not contain lands designated as Very High Fire Hazard Severity Zones. Therefore, no impact would occur.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Discussion

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Potentially Significant Impact. As previously discussed, a biological resources technical report will be prepared for the proposed project, which will evaluate potential impacts to special status and/or sensitive species. Additionally, a historical resources technical report and a cultural resources technical report will be prepared for the proposed project, which will evaluate potential impacts to historical and archaeological resources, including tribal cultural resources. A detailed analysis of these issues will be included in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact. Pursuant to CEQA Guidelines Section 15130, the EIR will include an evaluation of the proposed project's potential to contribute to cumulative impacts when considered in combination with the effects of other related projects. A detailed analysis of this issue will be included in the EIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact. The proposed project could potentially result in environmental effects that may cause adverse effects on human beings with regard to the following environmental areas discussed in this Initial Study: aesthetics, air quality, energy, greenhouse gas emissions, hydrology and water quality, noise, population and housing, public services, recreation, transportation, and utilities and service systems. A detailed analysis of the project's potential direct and indirect effects on human beings will be included in the EIR.

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STATE OF CALIFORNIA Gavin Newsom, *Governor*

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April 27, 2022

May 02 2022

Melissa Soto
The Board of Trustees of the California State University
401 Golden Shore
Long Beach, CA 90802

Re: 2022040460, Campus Master Plan Update Environmental Impact Report Project, Los Angeles County

Dear Ms. Soto:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

- **a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
- **b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- **a.** Avoidance and preservation of the resources in place, including, but not limited to:
  - **i.** Planning and construction to avoid the resources and protect the cultural and natural context.
  - **ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- **b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - **i.** Protecting the cultural character and integrity of the resource.
  - **ii.** Protecting the traditional use of the resource.
  - **iii.** Protecting the confidentiality of the resource.
- **c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- **d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
- **e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
- **f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- **a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- **b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- **c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
  - **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - **a.** If part or all of the APE has been previously surveyed for cultural resources.
  - **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
  - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
  - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

From: Lijin Sun <LSun@aqmd.gov>
Sent: Tuesday, May 17, 2022 9:34 AM
To: Melissa Soto <Melissa.Soto@csulb.edu>
Cc: Michael Morris <mmorris@aqmd.gov>
Subject: South Coast AQMD Staff NOP Comments for the California State University, Long Beach Master Plan Update

You don't often get email from lsun@aqmd.gov. Learn why this is important

CAUTION: This email was sent from an external source.

Dear Ms. Soto,

Attached are South Coast AQMD staff's comments on the Notice of Preparation of a Draft Environmental Impact Report for the California State University, Long Beach Master Plan Update (South Coast AQMD Control Number: LAC220426-04).

Thank you,
Lijin Sun
Program Supervisor, CEQA IGR
South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765
Direct: (909) 396-3308
Fax: (909) 396-3324
**Please note that the building is closed to the public.*

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
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SENT VIA E-MAIL: May 17, 2022

Melissa.Soto@csulb.edu
Melissa Soto, Program Planner
California State University, Long Beach
Design and Construction Services Office
1331 Palo Verde Avenue
Long Beach, California 90815

Notice of Preparation of a Draft Environmental Impact Report for the California State University, Long Beach Master Plan Update (Proposed Project)

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send a copy of the Draft EIR upon its completion and public release directly to South Coast AQMD as copies of the Draft EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all emission calculation spreadsheets, and air quality modeling and health risk assessment input and output files (not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

CEQA Air Quality Analysis

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website[1] as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod[2] land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's CEQA regional pollutant emissions significance thresholds[3] and localized significance thresholds (LSTs)[4] to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of

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[1] South Coast AQMD's CEQA Handbook and other resources for preparing air quality analyses can be found at: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook.

[2] CalEEMod is available free of charge at: www.caleemod.com.

[3] South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

[4] South Coast AQMD's guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA ***operational*** thresholds to determine the level of significance.

If the Proposed Project generates diesel emissions from long-term construction or attracts diesel-fueled vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment[5].

The South Coast AQMD's *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*[6] includes suggested policies that local governments can use in their General Plans or through local planning to prevent or reduce potential air pollution impacts and protect public health. It is recommended that the Lead Agency review this Guidance Document as a tool when making local planning and land use decisions.

Mitigation Measures

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook[1], South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2016 Air Quality Management Plan[7], and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy[8].

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at lsun@aqmd.gov.

Sincerely,

Lijin Sun

Lijin Sun
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
LAC220426-04
Control Number

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[5] South Coast AQMD's guidance for performing a mobile source health risk assessment can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.

[6] South Coast AQMD. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Available at: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

[7] South Coast AQMD's 2016 Air Quality Management Plan can be found at: http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf (starting on page 86).

[8] Southern California Association of Governments' 2020-2045 RTP/SCS can be found at: https://www.connectsocal.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf.

From: Huffman, Mandy <mandyhuffman@lacsd.org>
Sent: Wednesday, May 18, 2022 3:00 PM
To: Melissa Soto <Melissa.Soto@csulb.edu>
Subject: Master Plan Update EIR Comments

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CAUTION: This email was sent from an external source.

Dear Ms. Soto:

Attached please find Los Angeles County Sanitation Districts' response to the subject project.

Sincerely,

Mandy Huffman
Environmental Planner | Wastewater Planning
562-908-4288 ext. 2743
mandyhuffman@lacsd.org

Logo

Website | Facebook | Twitter | Instagram | YouTube

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

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Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

May 18, 2022

Ref. DOC 6521340

Ms. Melissa Soto, Program Planner
California State University, Long Beach
Office of Design + Construction Services
1331 Palo Verde Avenue
Long Beach, CA 90815

Dear Ms. Soto:

NOP Response to California State University, Long Beach Master Plan Update

The Los Angeles County Sanitation Districts (Districts) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report for the subject project on April 20, 2022. The proposed project is located within the jurisdictional boundaries of Districts Nos. 3 and 19. We offer the following comments regarding sewerage service:

1. The Districts maintain sewerage facilities within the project area that may be affected by the proposed project. Approval to construct improvements within a Districts' sewer easement and/or over or near a Districts' sewer is required before construction may begin. For a copy of the Districts' buildover procedures and requirements, go to www.lacsd.org, under Services, then Wastewater Program and Permits, and select Buildover Procedures. For more specific information regarding the buildover procedure, please contact Ms. Danielle Thomas at (562) 908-4288, extension 2754.

2. Due to the anticipated volume of wastewater to be generated by the proposed project and from other planned developments in the area, the proposed project may have significant impacts on the Districts' sewerage system. Although there is no relief sewer scheduled for construction at this time, as additional flows are generated and the Districts' trunk sewer nears capacity, construction of a relief sewer will be scheduled, depending on the availability of relief project funding. Therefore, the availability of capacity within the Districts' sewerage system should be verified as the proposed project develops.

3. The wastewater flow originating from the proposed project will discharge to local sewer lines, which are not maintained by the Districts, for conveyance to the one or more of the following Districts' trunk sewers:

Name	Location	Size (dia.)*	Capacity (mgd)**	Peak Flow (mgd)	Last Measured
Joint Outfall "C "Unit 3D	15th St. at Pacific Coast Highway	51	32.2	9.7	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Connection Sewer	Private right-of-way north of Deukmejian Way and east of the tennis courts on campus	24	4.7	1.9	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Connection Sewer	E. State University Dr. at E. Campus Rd.	8	0.7	0.1	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Gravity Sewer	E. Atherton St. between E. Abbeyfield St. and E. Daggett St.	37.1	14.8	11.6	2020
Joint Outfall "C " Unit 5A Replacement Trunk Sewer	E. State University Dr. at W. Campus Rd.	12	1.3	0.06	2020

*diameter in inches
**million gallons per day

4. The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 mgd and currently processes an average flow of 249.8 mgd, or the Long Beach Water Reclamation Plant, which has a capacity of 25 mgd and currently processes an average flow of 15.2 mgd.

5. The expected increase in average wastewater flow from the project site, described in the NOP as a projected increase of 4,000 full-time-equivalent students on-campus by the year 2035, is 80,000 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits, select Will Serve Program, and scroll down to click on the Table 1, Loadings for Each Class of Land Use link.

6. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is used by the Districts for its capital facilities. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family Home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, the developer should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2743, or mandyhuffman@lacsd.org.

Very truly yours,

Mandy Huffman

Mandy Huffman
Environmental Planner
Facilities Planning Department

MNH:mnh

cc: A. Schmidt
A. Howard
D. Thomas

DOC 6573780.D0319

From: Leatherman, Nicole@Wildlife <Nicole.Leatherman@Wildlife.ca.gov>
Sent: Thursday, May 19, 2022 11:45 AM
To: Melissa Soto <melissa.Soto@csulb.edu>
Cc: Wilson-Olgin, Erinn@Wildlife <Erinn.Wilson-Olgin@wildlife.ca.gov>; Tang, Victoria@Wildlife <Victoria.Tang@wildlife.ca.gov>; Kwan-Davis, Ruby@Wildlife <Ruby.Kwan-Davis@Wildlife.ca.gov>; Silva, Felicia@Wildlife <Felicia.Silva@Wildlife.ca.gov>; Portugal, Julisa@Wildlife <Julisa.Portugal@Wildlife.ca.gov>; Rieman, Frederic@Wildlife <Frederic.Rieman@Wildlife.ca.gov>; Hailey, Cindy@Wildlife <Cindy.Hailey@wildlife.ca.gov>; Wildlife CEQA Comment Letters <CEQACommentLetters@wildlife.ca.gov>; state.clearinghouse@opr.ca.gov
Subject: Long Beach Master Plan Update EIR Comments

You don't often get email from nicole.leatherman@wildlife.ca.gov. Learn why this is important

CAUTION: This email was sent from an external source.

Good morning,

Please see the attached letter regarding California Department of Fish and Wildlife's comments on the Long Beach Master Plan Update, Notice of Preparation in the County of Los Angeles. If you have any questions or concerns relating to this letter, please feel free to contact CDFW at your convenience.

Thank you for the opportunity to comment and have a good day.

Nicole Leatherman
Environmental Scientist
California Department of Fish and Wildlife
4665 Lampson Avenue, St C
Los Alamitos California 90720
Cell: 858-761-8020

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 92123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

BY EMAIL ONLY

May 19, 2022

Melissa Soto
California State University, Long Beach
Office of Design + Construction Services
1331 Palo Verde Avenue
Long Beach, California 90815
Melissa.Soto@csulb.edu

Subject: Notice of Preparation of a Draft Environmental Impact Report for the proposed California State University, Long Beach Master Plan Update, SCH #2022040460, County of Los Angeles

Dear Ms. Soto:

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) by the California State University, Long Beach (CSULB) for the for the CSULB Master Plan Update Project (Project). The NOP's supporting documents included a Project Initial Study (IS). CDFW appreciates the opportunity to provide comments regarding aspects of the Project that could affect fish and wildlife resources and be subject to CDFW's regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is submitting comments as the trustee agency for the State's fish and wildlife resources and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a), 1802; Pub. Resources Code, § 21070; Cal. Code Regs., tit. 14, § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (Fish & G. Code, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect the State's fish and wildlife resources.

CDFW is also submitting comments as a potential responsible agency under CEQA (Pub. Resources Code, § 21069; Cal. Code Regs., tit. 14, § 15381) because the Project might require a permit from CDFW in the form of a streambed alteration agreement under Fish and Game Code section 1602 and/or of take authorization under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.) and the Native Plant Protection Act (Fish & G. Code, § 1900 et seq.). CDFW expects the Project proponent to obtain appropriate authorization for the Project under the Fish and Game Code from CDFW.

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Project Description and Summary

Objective: The Project proposes a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth, campus population, and physical development of the campus through the year 2035. The Project focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs, thereby minimizing the need for net new developed square footage. The CEQA document for this Project will be evaluated at a programmatic level for use in evaluating later development activities proposed as well as a project level for specific near-term projects.

The primary strategies for implementing the Project include renovation of existing buildings, demolition and replacement of existing buildings in the same physical location, construction of new buildings, and leaving buildings in their existing location and configuration. The Project also identifies goals and strategies to improve open space, mobility, parking, sustainability, and resiliency.

Location: The Project site consists of the CSULB campus located within the City of Long Beach, in southern Los Angeles County, California. The City of the Long Beach is bordered by the cities of Paramount and Lakewood to the north; the Pacific Ocean to the South; the cities of Hawaiian Gardens, Cypress, and Los Alamitos, the unincorporated community of Rossmoor, and the city of Seal Beach in Orange County to the east; and the cities of Los Angeles, Carson, and Compton to the west.

Comments and Recommendations

CDFW offers the following comments and recommendations below to assist CSULB in adequately identifying, avoiding, and mitigating the Project’s significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The DEIR should provide adequate and complete disclosure of the Project’s potential impacts on biological resources (Pub. Resources Code, § 21061; Cal. Code Regs., tit. 14, §§ 15003, subd. (i), 15151). CDFW looks forward to commenting on the DEIR when it becomes available.

Specific Comments

1) Jurisdictional Waters. Bouton Creek runs through the Project site and may be impacted by future development within or adjacent to the creek. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. For any such activities, the project applicant (or “entity”) must provide written notification to CDFW pursuant to Fish and Game Code Section 1600 *et seq*.

    a) Analysis and Disclosure. In preparation of the Project’s DEIR, CDFW recommends the DEIR include a stream delineation and evaluation of impacts on any river, stream, or lake. The delineation should be conducted pursuant to the USFWS wetland definition adopted by CDFW (Cowardin *et al*. 1979). The DEIR should discuss the Project’s potential impact on streams including impacts on associated natural communities. Potential impacts may include changes to drainage pattern, runoff, and sedimentation.

The DEIR should include a map of where Project development and rezoning could occur overlaid on streams.

b) Lake and Streambed Alteration Agreement. CDFW's issuance of a Lake and Streambed Alteration (LSA) Agreement for a project that is subject to CEQA will require CEQA compliance actions by CDFW as a responsible Agency. As a Responsible Agency, CDFW may consider the environmental document of the local jurisdiction (Lead Agency) for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the environmental document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of the LSA Agreement. Please visit CDFW's Lake and Streambed Alteration Program webpage for information about LSA Notification (CDFW 2022).

2) Nesting Birds. There are trees and shrubs within the Project site that could support nesting birds. Project activities occurring during the nesting bird season, especially in areas providing suitable nesting habitat, could result in the incidental loss of fertile eggs or nestlings, or nest abandonment.

a) Protection Status. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (Code of Federal Regulations, Title 50, § 10.13). Sections 3502, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any raptor.

b) Analysis and Disclosure. The DEIR should discuss the Project's potential impact on nesting birds and raptors. A discussion of potential impacts should include impacts that may occur during implementation of future projects facilitated by the Project resulting in ground-disturbing activities and/or vegetation removal.

c) Avoidance. CDFW recommends the DEIR include measures that require future projects facilitated by the Project to fully avoid impacts on nesting birds and raptors. To the extent feasible, no construction, ground-disturbing activities (e.g. mobilizing, staging, drilling, and excavating), and vegetation removal should occur during the avian breeding season which generally runs from February 15 through September 15 (as early as January 1 for some raptors) to avoid take of birds, raptors, or their eggs.

3) Bats. Numerous bat species are known to roost in trees and structures throughout Los Angeles County (Miner and Stokes 2005). Project-related activities may include plans to demolish currently existing structures and the construction of new structures, which could impact roosting bats. This could result in injury and/or mortality of bats, as well as loss of roosting habitat. Bats and roosts could also be impacted by increased noise, human activity, dust, and ground vibrations.

a) Protection Status. Bats are considered non-game mammals and are afforded protection by State law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code Regs., tit. 14, § 251.1). In addition, some bats are considered a California Species of Special Concern (SSC). CEQA provides protection not only for CESA-listed species, but for any

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species including but not limited to SSC which can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines § 15065).

b) Analysis and Disclosure. The DEIR should discuss the Project's potential impact on bats and habitat supporting roosting bats. A discussion of potential impacts should include impacts that may occur during implementation of future projects facilitated by the Project resulting in ground-disturbing activities and/or vegetation removal.

c) Avoidance and Minimization. If the Project would impact bats, CDFW recommends the DEIR include measures that require future projects facilitated by the Project to avoid and minimize impacts on bats, roosts, and maternity roosts. Individual projects should be required to retain a qualified bat specialist identify potential daytime, nighttime, wintering, and hibernation roost sites and conduct bat surveys within these areas (plus a 100-foot buffer as access allows) to identify roosting bats and any maternity roosts. CDFW recommends using acoustic recognition technology to maximize detection of bats. The DEIR should include mitigation measures in accordance with California Bat Mitigation Measures (Johnston et al. 2004) that would be implemented at a project-level.

General Comments

1) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a project through the use of feasible alternatives or mitigation measures [CEQA Guidelines, §§ 15002(a)(3), 15021]. Pursuant to CEQA Guidelines section 15126.4, an environmental document "shall describe feasible measures which could mitigate for impacts below a significant level under CEQA."

a) Level of Detail. Mitigation measures must be feasible, effective, implemented, and fully enforceable/imposed by the lead agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, § 15126.4). A public agency "shall provide the measures that are fully enforceable through permit conditions, agreements, or other measures" (Pub. Resources Code, § 21081.6). CDFW recommends CSULB provide mitigation measures that are specific, detailed (i.e., responsible party, timing, specific actions, location), and clear in order for a measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).

b) Disclosure of Impacts. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the proposed Project, the DEIR should include a discussion of the effects of proposed mitigation measures [CEQA Guidelines, § 15126.4(a)(1)]. In that regard, the DEIR should provide an adequate, complete, and detailed disclosure about the Project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.

2) Data. CEQA requires that information developed in environmental impact reports be incorporated into a database which may be used to make subsequent or supplemental environmental determinations [Pub. Resources Code, § 21003, subd. (e)]. Accordingly,

please report any special status species and sensitive natural communities detected by completing and submitting CNDDB Field Survey Forms (CDFW 2022). To submit additional information on sensitive natural communities, the Combined Rapid Assessment and Releve Form should be completed and submitted to CDFW's Vegetation Classification and Mapping Program (CDFW 2022). CSULB should ensure data collected for the preparation of the DEIR be properly submitted and with all applicable data fields filled out.

3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project area and where the Project may result in ground disturbance. The assessment and analysis should place emphasis on identifying endangered, threatened, rare, and sensitive species; regionally and locally unique species; and sensitive habitats. An impact analysis will aid in determining the Project's potential direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts. CDFW also considers impacts to California Species of Special Concern (SSC) a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. The DEIR should include the following information:

   a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region [CEQA Guidelines, § 15125(c)]. The DEIR should include measures to fully avoid and otherwise protect Sensitive Natural Communities. CDFW considers Sensitive Natural Communities as threatened habitats having both regional and local significance. Natural communities, alliances, and associations with a State-wide rarity ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting the Vegetation Classification and Mapping Program - Natural Communities webpage (CDFW 2022);

   b) A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Botanical field surveys should be comprehensive over the entire Project area, including areas that could be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology;

   c) Floristic alliance- and/or association-based mapping and vegetation impact assessments conducted in the Project area and within adjacent areas. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer *et al.* 2009). This assessment should include adjoining habitat areas that could be directly or indirectly impacted by the Project;

   d) A complete and recent assessment of the biological resources associated with each habitat type in the Project area and within adjacent areas. CDFW's California Natural Diversity Database in Sacramento should be contacted to obtain current information on any previously reported sensitive species and habitat (CDFW 2022). An assessment should include a minimum nine-quadrangle search of the CNDDB to determine a list of species potentially present in the Project area. A lack of records in the CNDDB does not

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mean that rare, threatened, or endangered plants and wildlife do not occur. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review [CEQA Guidelines, § 15003(i)];

e) A complete, recent, assessment of endangered, rare, or threatened species and other sensitive species within the Project area and adjacent areas, including SSC and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project area should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines for established survey protocol for select species (CDFW 2022). Acceptable species-specific survey procedures may be developed in consultation with CDFW and U.S. Fish and Wildlife Service; and,

f) A recent wildlife and rare plant survey. CDFW generally considers biological field assessments for wildlife to be valid for a one-year period and assessments for rare plants may be considered valid for a period of up to three years. Some projects may warrant periodic updated surveys for certain sensitive taxa, particularly if build out and project implementation could occur over a protracted time frame or in phases.

4) Biological Direct, Indirect, and Cumulative Impacts. The DEIR should provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources with specific measures to offset such impacts. The DEIR should address the following:

a) A discussion regarding Project-related indirect impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands [e.g., preserve lands associated with a Natural Community Conservation Plan (Fish & G. Code, § 2800 et. seq.)]. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in areas adjacent to the Project, should be fully analyzed and discussed in the DEIR;

b) A discussion of both the short-term and long-term effects of the Project on species population distribution and concentration, as well as alterations of the ecosystem supporting those species impacted [CEQA Guidelines, § 15126.2(a)];

c) A discussion of potential adverse impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures;

d) An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR; and,

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e) A cumulative effects analysis as described under CEQA Guidelines section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant and wildlife species, habitat, and natural communities. If CSULB determines that the Project would not have a cumulative impact, the DEIR should indicate why the cumulative impact is not significant. CSULB's determination should be supported by facts and analyses [CEQA Guidelines, § 15130(a)(2)].

5) CESA. CDFW considers adverse impacts to a species protected by CESA to be significant without mitigation under CEQA. As to CESA, take of any endangered, threatened, candidate species, or CESA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2800, 2085; Cal. Code Regs., tit, 14 §786.9). Consequently, if the Project or any Project-related activities during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

6) Use of Native Plants and Trees. CDFW supports the use of native plants for any project proposing revegetation and landscaping. CDFW strongly recommends avoiding non-native, invasive plants for landscaping and restoration, particularly any species listed as 'Moderate' or 'High' by the California Invasive Plant Council (Cal-IPC 2022). CDFW supports the use of native species found in naturally occurring plant communities within or adjacent to the Project area. In addition, CDFW supports planting species of trees, such as oaks (*Quercus* genus), and understory vegetation (e.g., ground cover, subshrubs, and shrubs) in order to create habitat and provide a food source for birds. CDFW recommends retaining any standing, dead, or dying tree (snags) where possible because snags provide perching and nesting habitat for birds and raptors. Finally, CDFW supports planting species of vegetation with high insect and pollinator value.

7) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of removing plants and wildlife from one location and permanently moving it to a new location. CDFW generally does not support the use of translocation or transplantation as the primary mitigation strategy for unavoidable impacts to endangered, rare, or threatened plants and animals. Studies have shown that these efforts are experimental and the outcome unreliable. CDFW has found that permanent preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving plants and animals and their habitats.

8) Compensatory Mitigation. The DEIR should include compensatory mitigation measures for the Project's significant direct and indirect impacts to sensitive and special status plants, animals, and habitats. Mitigation measures should emphasize avoidance and minimization of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore inadequate to mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement and financial assurance and dedicated to a qualified entity for long-term management and monitoring. Under Government Code, section 65967, the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

9) Long-term Management of Mitigation Lands. For proposed preservation and/or restoration, the DEIR should include measures to protect the targeted habitat values from direct and indirect negative impacts in perpetuity. The objective should be to offset Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be set aside to provide for long-term management of mitigation lands.

10) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the Fish and Game Commission's (Commission) policies. The Wetlands Resources policy the Commission "…seek[s] to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California" (CFGC 2020). Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."

    a) The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project should include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic values and functions benefiting local and transient wildlife populations. CDFW recommends mitigation

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measures to compensate for unavoidable impacts be included in the DEIR and these measures should compensate for the loss of function and value.

b) The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).

Conclusion

We appreciate the opportunity to comment on the NOP for the California State University, Long Beach Master Plan Update Project to assist the California State University of Long Beach in identifying and mitigating Project impacts on biological resources. If you have any questions or comments regarding this letter, please contact Nicole Leatherman, Environmental Scientist, at Nicole.Leatherman@wildlife.ca.gov or (858)-761-8020.

Sincerely,

DocuSigned by:

B6E58CFE24724F5...

Erinn Wilson-Olgin
Environmental Program Manager I
South Coast Region

ec: CDFW
Erinn Wilson-Olgin, Los Alamitos – Erinn.Wilson-Olgin@wildlife.ca.gov
Victoria Tang, Los Alamitos – Victoria.Tang@wildlife.ca.gov
Ruby Kwan-Davis, Los Alamitos – Ruby.Kwan-Davis@wildlife.ca.gov
Felicia Silva, Los Alamitos – Felicia.Silva@wildlife.ca.gov
Julisa Portugal, Los Alamitos – Julisa.Portugal@wildlife.ca.gov
Fritz Rieman, Los Alamitos – Frederic.Rieman@wildlife.ca.gov
Cindy Hailey, San Diego – Cindy.Hailey@wildlife.ca.gov
CEQA Program Coordinator, Sacramento – CEQACommentLetters@wildlife.ca.gov
State Clearinghouse, Office of Planning and Research – State.Clearinghouse@opr.ca.gov

References:

[CDFW] California Department of Fish and Wildlife. 2021. Lake and Streambed Alteration Program. Available from: https://wildlife.ca.gov/Conservation/LSA

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From: Escobar, Ronnie@DOT <Ronnie.Escobar@dot.ca.gov>
Sent: Monday, May 23, 2022 7:07 AM
To: Melissa Soto <Melissa.Soto@csulb.edu>
Subject: RE: Master Plan Update EIR Comments

You don't often get email from ronnie.escobar@dot.ca.gov. Learn why this is important

CAUTION: This email was sent from an external source.

Hi Melissa,

Thank you for including the California Department of Transportation (Caltrans) in the review process. Attached you will find the response/comment letter for SCH# 2022040460, LD-IGR GTS #07-LA-2022-03920 (CSULB Master Plan Update- NOP).

Thank You,

Ronnie Escobar | Associate Transportation Planner (acting)
Local Development Review
Caltrans District 7 - Division of Transportation Planning
cell: 909.963.6874 office: 909.383.6387
email: ronnie.escobar@dot.ca.gov

From: Melissa Soto <Melissa.Soto@csulb.edu>
Sent: Friday, May 20, 2022 3:38 PM
To: Escobar, Ronnie@DOT <Ronnie.Escobar@dot.ca.gov>
Subject: RE: Master Plan Update EIR Comments

EXTERNAL EMAIL. Links/attachments may not be safe.

Hi Ronnie,

Yes, you can submit comments on Monday and we will accept them. We appreciate Caltrans providing comments.

Thanks,

Melissa Soto | MURP
Program Planner, Capital Construction
Design & Construction Services | California State University, Long Beach
1250 Bellflower Blvd. | Long Beach, CA 90840-5805
562-985-5127 Office
melissa.soto@csulb.edu

From: Escobar, Ronnie@DOT <Ronnie.Escobar@dot.ca.gov>
Sent: Friday, May 20, 2022 3:08 PM
To: Melissa Soto <Melissa.Soto@csulb.edu>
Subject: Master Plan Update EIR Comments

You don't often get email from ronnie.escobar@dot.ca.gov. Learn why this is important
CAUTION: This email was sent from an external source.

Hi Melissa Soto,

I am writing from Caltrans Local Development Review. We are in the process or reviewing and composing a comment letter to the CSULB Master Plan Update NOP EIR. I would like to ask if we could have an extension to submit our letter. I will try to have it submitted by today's deadline , 5/20/2022, but in the event that that does not occur, could we have an extension for Monday 5/23/2022? It would be much appreciated, please let me know if this is a possibility.

Thank You,

Ronnie Escobar | Associate Transportation Planner (acting)
Local Development Review
Caltrans District 7 - Division of Transportation Planning
cell: 909.963.6874 office: 909.383.6387
email: ronnie.escobar@dot.ca.gov

DEPARTMENT OF TRANSPORTATION
District 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 266-3562
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

May 20, 2022

Melissa Soto
Program Planner
California State University, Long Beach
1331 Palo Verde, Avenue
Long Beach CA, 90815

RE: California State University, Long Beach Master Plan Update – Notice of Preparation of an Environmental Impact Report (NOP)
SCH # 2022040460
GTS # 07-LA-2022-03920

Dear Melissa Soto:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced NOP. California State University, Long Beach (CSULB) is proposing a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth and a future campus population and physical development of the campus through the horizon year 2035. The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of operational uses throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs, thereby minimizing the need for net new developed square footage. The goal of the Master Plan Update is to support and advance the CSULB mission, strategic vision, and values by guiding the physical development of the campus and to accommodate changes in enrollment through the horizon year 2035. The California State University Office of the Chancellor is the Lead Agency under the California Environmental Quality Act (CEQA).

The main campus, located at 1250 Bellflower Boulevard, encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street (State Route 22) on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west. The Master Plan Update also encompasses Beachside Village, which is a California State University (CSU)-owned student residential complex located at 4835 Pacific Coast Highway, approximately 0.6 miles west of the main CSULB campus. The initial study identifies the following as potentially significant impacts to Transportation:

- Whether the proposed improvements conflict with a program plan, ordinance, or policy addressing the circulation system.
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); potential to generate vehicle miles traveled (VMT) and its impact on VMT.
- Potential for increased hazards due to a geometric design feature.
- Emergency access.

Therefore, a transportation impact assessment technical report will be prepared for further analysis in the Environmental Impact Report (EIR). Due to the potential for significant impacts, Caltrans concurs with the preparation of a transportation impact assessment. It is also recommended that the following on and off-ramps and intersections be included in the analysis: Interstate 405 (I-405) Northbound (NB) and Southbound (SB) at Bellflower Boulevard, I-405 NB and SB at Palo Verde Avenue, I-405 NB and SB at Studebaker Road, and State Route 22 (SR-22) and West Campus Drive intersection to the SR-22 and E. Campus Drive/Margo Avenue intersection. We look forward to reviewing the transportation impact assessment.

If any potential safety impacts are identified during the EIR, the following preferred traffic safety impact mitigation may be recommended as mitigation:

- Transportation demand management program(s) to reduce the traffic safety impacts, which may include increased transit access, commute trip reductions such as rideshare programs, shared mobility facilities (bicycle or vehicular), increased bicycle and pedestrian infrastructure.
- Investments to existing active transportation infrastructure, or transit system amenities (or expansion) to reduce the project's traffic safety impacts.
- Potential change(s) to the intersection and ramp operations including, but not limited to lane reassignment, traffic signalization, signal phasing or timing modifications, turn lane extensions to mitigate safety impacts from project traffic.

As a reminder, Senate Bill 743 (2013) mandates that VMT be used as the primary metric in identifying transportation impacts of all future projects under CEQA, starting July 1, 2020. For information on determining transportation impacts in terms of VMT on the State Highway System, see the Technical Advisory on Evaluating Transportation Impacts in CEQA by the California Governor's Office of Planning and Research (OPR), dated December 2018. Caltrans has published the VMT-focused Transportation Impact Study Guide (TISG), dated May 20, 2020, and the Caltrans Interim Local Development and Intergovernmental Review (LD-IGR) Safety Review Practitioners Guidance, prepared on December 18, 2020. Caltrans' new TISG is largely based on the OPR 2018 Technical Advisory. You can review these resources online at:

- http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf
- https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf
- https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb743/2020-12-22-updated-interim-ldigr-safety-review-guidance-a11y.pdf

We encourage the Lead Agency to evaluate the potential of additional Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. For TDM strategies, please refer to the Federal Highway

Administration's Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8). This reference is available online at: http://www.ops.fhwa.dot.gov/publications/fhwahop12035/fhwahop12035.pdf

Caltrans also encourages Lead Agencies to promote alternative transportation. This will increase accessibility and decrease Greenhouse Gas Emissions, which supports Caltrans' mission to provide a safe and reliable transportation network that serves all people and respects the environment. For additional strategies that will promote equity and environmental preservation, please refer to the 2010 Quantifying Greenhouse Gas Mitigation Measures report by the California Air Pollution Control Officers Association (CAPCOA), which is available online at: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Finally, any work completed on or near Caltrans' right of way may require an encroachment permit. However, the final determination on this will be made by Caltrans' Office of Permits. This work would require additional review and may be subject to additional requirements to ensure current design standards and access management elements are addressed. For more information on encroachment permits, see: https://dot.ca.gov/programs/traffic-operations/ep.

If you have any questions regarding these comments, please contact Ronnie Escobar, the project coordinator, at Ronnie.Escobar@dot.ca.gov, and refer to GTS # 07-LA-2022-03920.

Sincerely,

Miya Edmonson

MIYA EDMONSON
LDR/CEQA Branch Chief

cc: State Clearinghouse

From: Martha <catlin4us@gmail.com>
Sent: Friday, May 20, 2022 11:39 PM
To: Melissa Soto <Melissa.Soto@csulb.edu>
Subject: Master Plan Update EIR Comments

You don't often get email from catlin4us@gmail.com. Learn why this is important
CAUTION: This email was sent from an external source.

Hello Melissa,

Attached is a pdf file containing my comments and photo references regarding the CSULB Master Plan.

Please see the attached file for all comments and kindly confirm receipt and viewability of the pdf file.

Kind Regards,

-Martha Catlin

To: Melissa Soto

I received through U.S. mail a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) due to my property's proximity to the California State University, Long Beach campus.

I have reviewed the materials that were made available through Zoom meetings and the Virtual Open House, and would like to submit the following comments for review.

Sincerely,
Martha Catlin
catlin4us@gmail.com

Section 3.1 Aesthetics:

3 INITIAL STUDY CHECKLIST

3.1 Aesthetics

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

a: Effect on a scenic vista: The report found "No Impact"

The following photos demonstrate how newer CSULB construction has greatly impacted the quality of views, site lines, lighting and overall greatly diminished the aesthetics of the community and historic public park Rancho Los Alamitos bordering the campus at East Campus Drive/Anaheim Rd/Palos Verdes. These examples provide reasons for concerns regarding future construction projects.

Microbiology Bldg:
• Building greatly impacts the neighborhood views, site lines, and access to late afternoon light (see photo below)

• Property values were significantly lower than similar properties in surrounding areas.

• Aesthetically displeasing

• Blocks view and light sources

• Blocks site lines which is both aesthetically displeasing and a safety issue

• Did not allow enough space for landscaping

• Built too close to E. Campus Drive to allow adequate bike and pedestrian lanes creating a safety issue

Microbiology Bldg:
• The height and scale of the building shrouds the adjoining community

• Greatly impacts privacy and quality of life of residents

Science Center:
• The height and scale of the building shrouds the adjoining community

• Evening light glare is substantial and excessive

• Creates light pollution which interrupts sleep patterns of humans and wildlife, destroys views of night skies

• Frequent loud fire/security alarms

Proposed Faculty/
Graduate Housing

Engineering
Center

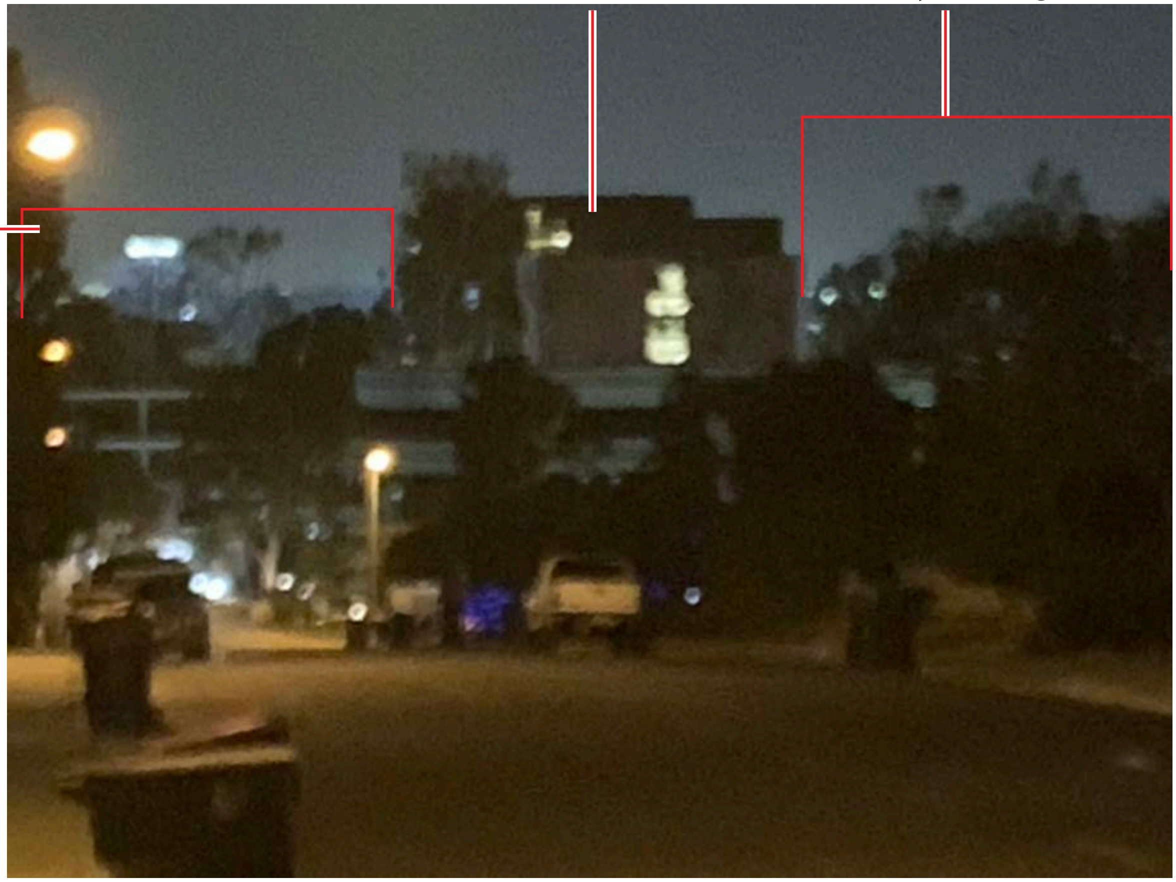
CSULB Research
Foundation

Bixby Hill Community
Private Home

Views of mountains, trees, will be nearly completely obstructed by the proposed 4-story Faculty/Graduate Housing

Impact on aesthetics, property values will be substantial

Loss of property value leads to decay of a neighborhood an potentially affects the value and safety of CSULB



Adverse outcomes to the surrounding neighborhoods:

- Substantial light/glare
- Loss of views
- Loss of site lines
- Loss of privacy

Section 3.1 Aesthetics Comments:

Although the findings in Section A found there to be "No Impact" on the Effect on a scenic vista, the impacts to the immediate neighborhood have and will be significant.

The students and faculty at CSULB benefit from the existing community around them. The low-density housing provides low traffic and easy access to the community. Pride of ownership in the surrounding neighborhoods provides safety and enhances the quality of life for the campus.

However, the benefits for the neighborhood are mostly negative.

- Large amounts of traffic at particular times of the day and beginning/endings of semesters
- Illegal driving/double-parking along Palos Verdes creates driving dangers
- Access to neighborhoods, especially access to the single entrance/exit for Bixby Hill at Palos Verdes/Anaheim Road is greatly affected by student traffic
- Dangerous walking/scooter/biking conditions at the intersection of Palos Verdes/Anaheim Road for students trying to access Sato Academy as well as CSULB

In general, the meetings have emphasized a need for more green spaces and photo opportunities on campus. While the campus strives for park-like vistas, the communities are losing their park-like vistas, especially along Atherton and Palos Verdes.

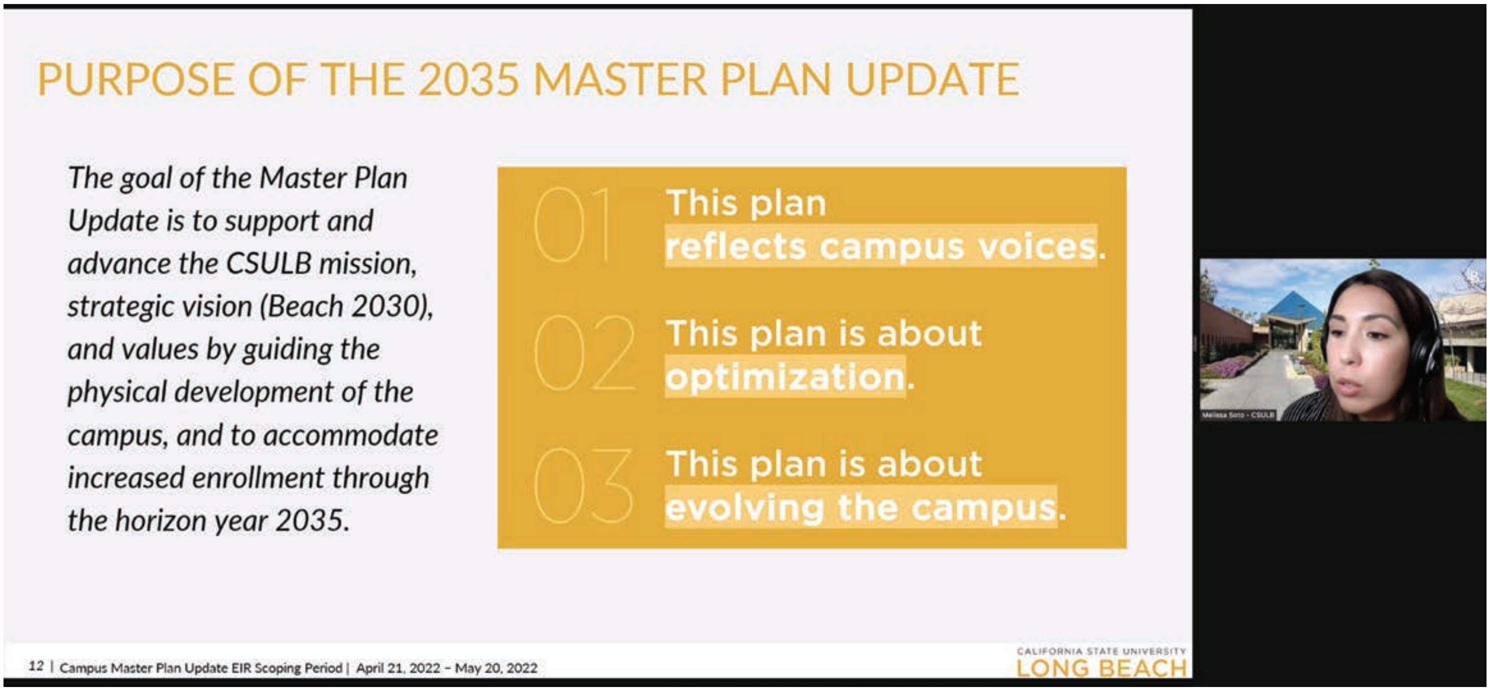
Recent housing construction on Atherton was built so close to the street, that it has obstructed site-lines and light glare at night is especially distracting and disturbing. Setting the building back an additional 20 feet would have improved aesthetics for the community substantially by providing adequate landscaping and site lines. Likewise, the Dance buildings adjacent to the Music Department and Carpenter Center are placed poorly. The corridor between the Music Center and the Dance theater is an unsafe space for a person who may find themselves alone or at night having to access that area.

Additionally, the Palos Verdes buildings have mostly been industrial in nature--parking garages, and have destroyed the park-like vistas from a previous generation.

These examples along with the photo examples are mistakes. Why continue to make them?

Please consider the community and what an important role site lines, green spaces, landscaping, general aesthetics, and sky lines play in our daily lives and emotional/mental needs.

REQUESTS:
1. Reduce the height and size of the proposed Faculty Housing, as well as its proximity to the street.
2. Consider a new location for the Faculty Housing such as off-location.
3. Consider how traffic and parking will impact the community near the housing facility.
4. Consider the noise and light created by the increased heights of all proposed buildings.



REQUESTS (cont):

5. The plan above reflects Campus Voices, Optimization and Evolving the Campus, but it does NOT consider the surrounding neighborhoods that are home to CSULB. Please consider the view from the community, and do not make the same mistakes that have incurred during previous building projects.

• Building built too close to campus edges resulting in loss of landscaping, site-lines and views for the community, lack of ability for future street/bike path expansion
• Architecture aesthetics are unappealing (Microbiology building, Atherton Street view of Carpenter Center/ Dance Buildings, the Pyramid which dominates Long Beach city views, parking structures)
• Disrespectful use of neighboring lands (Examples: dumping on sacred Tribal lands, destroying landscaping along East Campus Drive 2019, which lead to security problems, sound and visual problems)

6. Please consider the cost of the Faculty Housing construction vs. benefits. How long will a professor be allowed to live in the housing?

• If it is more than 1 year, then there will be no space left for new professors.
• If it is only one year, then a new professor may not be able to find new affordable housing the following year, which may result in high faculty turn-over.
• Would a housing allowance for a new recruit make more financial sense?
• Adult faculty members may have children of various ages from babies to teenagers. Does a mixed space of young children and grad students make sense? Will there be adequate playgrounds and other accommodations for children provided in the plan?

Thank you for your consideration.

Kind Regards,
-Martha Catlin

#1

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Sunday, April 24, 2022 9:22:14 AM
Last Modified: Sunday, April 24, 2022 9:23:16 AM
Time Spent: 00:01:02
IP Address: 107.77.231.127

Page 1

Q1

Please provide your full name. If you are providing comments on the scope of the Draft EIR, then your name, affiliation, and comment will be made part of the record available for public review.

Michael “mad dog” G

Q2

Respondent skipped this question

Please provide your organization/affiliation (if any).

Q3

Respondent skipped this question

Please provide your e-mail address if you would like to receive future notifications related to this project by e-mail (optional).

Q4

Respondent skipped this question

Please provide your mailing address if you would like to receive future notifications related to this project by mail (optional).

Q5

Please utilize the space below to provide your comments on the scope of Draft EIR.

Can’t wait to read it

#2

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, April 26, 2022 9:41:28 AM
Last Modified: Tuesday, April 26, 2022 9:47:53 AM
Time Spent: 00:06:24
IP Address: 71.83.192.148

Page 1

Q1

Please provide your full name. If you are providing comments on the scope of the Draft EIR, then your name, affiliation, and comment will be made part of the record available for public review.

Gina Zanone -Bixby Hill Homeowner. I am against this project. I am concerned of the environmental impact. The past construction of the parking structure and other buildings resulted in dirt constantly coating my car and home. With the current proposal I suspect an increase in traffic, noise, congestion, and again dirt impacting our community.

Q2

Please provide your organization/affiliation (if any).

Bixby Hill Homeowner

Q3

Please provide your e-mail address if you would like to receive future notifications related to this project by e-mail (optional).

Gzeetza@aol.com

Q4

Please provide your mailing address if you would like to receive future notifications related to this project by mail (optional).

Street Address 1	**6301 E Bixby Hill Rd**
City	**Long Beach**
State	**CA**
Zip Code	**90815**

Q5

Please utilize the space below to provide your comments on the scope of Draft EIR.

I am against the construction.

#3

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Wednesday, May 18, 2022 1:08:41 PM
Last Modified: Wednesday, May 18, 2022 1:11:11 PM
Time Spent: 00:02:30
IP Address: 172.113.165.26

Page 1

Q1

Please provide your full name. If you are providing comments on the scope of the Draft EIR, then your name, affiliation, and comment will be made part of the record available for public review.

Prospector Pete

Q2

Please provide your organization/affiliation (if any).

Respondent skipped this question

Q3

Please provide your e-mail address if you would like to receive future notifications related to this project by e-mail (optional).

Respondent skipped this question

Q4

Please provide your mailing address if you would like to receive future notifications related to this project by mail (optional).

Respondent skipped this question

Q5

Please utilize the space below to provide your comments on the scope of Draft EIR.

I am curious how your campus growth estimates align with reality: https://www.latimes.com/california/story/2022-05-18/l-a-unified-enrollment-expect-to-plummet-leading-to-academic-and-employment-worries

#4

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Friday, May 20, 2022 11:41:28 PM
Last Modified: Friday, May 20, 2022 11:49:34 PM
Time Spent: 00:08:05
IP Address: 66.214.22.99

Page 1

Q1

Please provide your full name. If you are providing comments on the scope of the Draft EIR, then your name, affiliation, and comment will be made part of the record available for public review.

Martha Catlin

Q2

Please provide your organization/affiliation (if any).

none

Q3

Please provide your e-mail address if you would like to receive future notifications related to this project by e-mail (optional).

catlin4us@gmail.com

Q4

Please provide your mailing address if you would like to receive future notifications related to this project by mail (optional).

Street Address 1	**885 N. Hillside Dr.**
City	**Long Beach**
State	**CA**
Zip Code	**90815**

Q5

Please utilize the space below to provide your comments on the scope of Draft EIR.

I have emailed comments to Melissa.Soto@csulb.edu in the form of a pdf file which includes photo images.

Section 3.1 Aesthetics:

a: Effect on a sceneic vista: The report found “No Impact” The following photos demonstrate how newer CSULB construction has greatly impacted the quality of views, site lines, lighting and overall greatly diminshed the aesthetics of the community and historic public park Rancho Los Alamitos bordering the campus at East Campus Drive/Anaheim Rd/Palos Verdes.

(PHOTO SECTION--refer to PDF file) Microbiology Bldg: • Building greatly impacts the neighborhood views, site lines, and access to late afternoon light
(see photo below) • Property values were significantly lower than similar properties in surrounding areas.

• Aesthetically displeasing

• Blocks view and light sources

• Blocks site lines which is both aesthetically displeasing and a safety issue

• Did not allow enough space for landscaping

• Built too close to E. Campus Drive to allow adequate bike and pedestrian lanes creating a safety issue

Microbiology Bldg: • The height and scale of the building shrouds the adjoining community

• Greatly impacts privacy and quality of life of residents

Science Center: • The height and scale of the building shrouds the adjoining community

• Evening light glare is substantial and excessive

• Creates light pollution which interrupts sleep patterns of humans and wildlife, destroys views of night skies

• Frequentloud fire/security alarms

Views of mountains, trees, will be nearly completely obstructed by the proposed 4-story
Faculty/Graduate Housing

Impact on aesthetics, property values will be substantial

Loss of property value leads to decay of a neighborhood an potentially affects the value and safety of CSULB

Section 3.1 Aesthetics Comments:

Although the findings in Section A found there to be “No Impact” on the Effect on a sceneic vista, the impacts to the immediate neighborhood have and will be significant. The students and faculty at CSULB benefit from the existing community around them. The low-density housing provides low traffic and easy access to the community. Pride of ownership in the surrounding neighborhoods provides safety and enhances the quality of life for the campus. However, the benefits for the neighborhood are mostly negative.

• Large amounts of traffic at particular times of the day and beginning/endings of semesters
• Illegal driving/double-parking along Palos Verdes creates driving dangers
• Access to neighborhoods, especially access to the single entrance/exit for Bixby Hill at Palos Verdes/Anaheim Road is greatly affected by student traffic
• Dangerous walking/scooter/biking conditions at the intersection of Palos Verdes/Anaheim Road for students trying to access Sato Academy as well as CSULB

In general, the meetings have emphasized a need for more green spaces and photo opportunities on campus. While the campus strives for park-like vistas, the communities are losing their park-like vistas, especially along Atherton and Palos Verdes. Recent housing construction on Atherton was built so close to the street, that it has obstructed site-lines and light glare at night is especially distracting and disturbing. Setting the building back an additional 20 feet would have improved aesthetics for the community substantially by providing adequate landscaping and site lines. Likewise, the Dance buildings adjacent to the Music Department and Carpenter Center are placed poorly. The corridor between the Music Center and the Dance theater is an unsafe space for a person who may find themselves alone or at night having to access that area. Additionally, the Palos Verdes buildings have mostly been industrial in nature--parking garages, and have destroyed the park-like vistas from a previous generation. These examples along with the photo examples are mistakes. Why continue to make them? Please consider the community and what an important role site lines, green spaces, landscaping, general aesthetics, and sky lines play in our daily lives and emotional/mental needs. REQUESTS: 1. Reduce the height and size of the proposed Faculty Housing, as well as its proximity to the street.
2. Consider a new location for the Faculty Housing such as off-location.
3. Consider how traffic and parking will impact the community near the housing facility.
4. Consider the noise and light created by the increased heights of all proposed buildings.

REQUESTS (cont): 5. The plan above reflects Campus Voices, Optimization and Evolving the Campus, but it does NOT consider the surrounding neighborhoods that are home to CSULB. Please consider the view from the community, and do not make the same mistakes that have incurred during previous building projects. • Building built too close to campus edges resulting in loss of landscaping, site-lines and views for the community, lack of ability for future street/bike path expansion
• Architecture aesthetics are unappealing (Microbiology building, Atherton Street view of Carpenter Center/ Dance Buildings, the Pyramid which dominates Long Beach city views, parking structures) • Disrespectful use of neighboring lands (Examples: dumping on sacred Tribal lands, destroying landscaping along East Campus Drive 2019, which lead to security problems, sound and visual problems)

6. Please consider the cost of the Faculty Housing construction vs. benefits. How long will a professor be allowed to live in the housing?

• If it is more than 1 year, then there will be no space left for new professors.
• If it is only one year, then a new professor may not be able to find new affordable housing the the following year, which may result in high faculty turn-over.
• Would a housing allowance for a new recruit make more financial sense?
• Adult faculty members may have children of various ages from babies to teenagers. Does a mixed space of young children and grad students make sense? Will there be adequate playgrounds and other accommodations for children provided in the plan? Thank you for your consideration. Kind Regards,
-Martha Catlin

APPENDIX B

Campus Population Projections Memorandum

MEMORANDUM

To: California State University, Long Beach

From: Fareeha Kibriya, Michael Baker International
Vicky Rosen, Michael Baker International

Date: February 22, 2023

Subject: California State University, Long Beach Master Plan Update – Campus Population Projections Memorandum

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1 INTRODUCTION

This memorandum documents the basis for determining enrollment and campus population numbers used for the California State University, Long Beach Master Plan Update (proposed project) Environmental Impact Report (EIR). This memorandum first includes background information on how enrollment growth is determined by the California State University (CSU). Next, the definitions of terms used throughout the memorandum are presented. This is followed by a discussion of the total campus population, which comprises full-time equivalent students (FTES), faculty and staff, in the baseline year of 2019-2020 and the horizon year of 2035. The final sections include a summary of the campus population to be analyzed in the EIR and a list of references used throughout this memorandum.

1.1 Background

The CSU Board of Trustees requires every CSU campus to have a master plan showing existing and proposed facilities necessary to accommodate a specified enrollment at an estimated planning horizon. The campus master plan reflects the physical requirements of academic programs and auxiliary activities during the planning horizon, and the CSU Board of Trustees recommend periodic re-evaluation of campus master plans in acknowledgment of master planning as a continuous process

Master Plans are intended to identify, describe, and provide a framework to implement proposed improvements to accommodate a projected change (generally an increase) in student enrollment and corresponding campus population (which includes student, faculty, and staff) through an identified planning horizon year. The projections serve as the basis for determining a campus's long-term space and infrastructure needs. Master Plans are based on annual academic year (AY) enrollment projections prepared by each campus as directed by the CSU Office of the Chancellor, which consults with the State of California to anticipate systemwide enrollment growth and associated funding in accordance with the CSU's educational mission according to California's Education Code.[1] Enrollment projections are for planning purposes to establish the CSU's physical development program, and do not mandate or commit CSU to any specific level of

[1] The California State University, State University Administrative Manual, Section VII, Five-Year Capital Improvement Program Procedures and Formats for Capital Outlay Submission: Section 9100.1, Basis for Major Capital Outlay and Five-Year Capital Improvement Program Submissions: 3. Full Time Equivalent Student Enrollment Allocations, available at: https://calstate.policystat.com/policy/6657509/latest/, accessed February 15, 2022.

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Office: 213.627.8645

student enrollment, overall growth, or set a maximum population limit that a campus can physically support.

In general, enrollment growth at each campus is driven by a directive from the CSU to absorb a reasonable proportion of the enrollment increases across the CSU system as a whole. Enrollment growth is also affected by campus-specific factors such as physical capacity, availability of and interest in specific academic programs, and the individual decisions of potential students. CSULB has recently established a goal of increasing online programs and services in order to serve a defined percentage of its future enrollment, making it more convenient for students to attend virtual classes and reducing trips to campus. The Master Plan Update's enrollment projection and accompanying development program would allow CSULB to balance growth with physical and financial resource constraints such as limited land resources to accommodate new facilities, a large number of outdated facilities that have critical deferred maintenance, and the need for student housing, driven by high demand and limited availability and affordability in the City of Long Beach and surrounding communities.

2 DEFINITIONS

Below are the definitions of the terms used throughout this memorandum, in alphabetical order. The definitions also include the source of the information provided, and how the term is applied in the analysis, as applicable.

Academic Year

The Academic Year (AY) is the college year excluding summer term.[2] CSULB operates on a semester system. Thus, the AY for CSULB is defined as the fall and spring terms.

Auxiliary Employees

CSULB defines auxiliary employees as those who are employed at Associated Students, Inc. (ASI), the 49er Shops, the CSULB 49er Foundation, and the CSULB Research Foundation.[3] The number of auxiliary employees for the 2019-2020 baseline year was provided by program planners in the Design & Construction Services Department at CSULB on June 28, 2022, and was obtained from each auxiliary employer. This number does not include the limited number of contractors or vendors that may be present on-campus for specific tasks or events. The number of contractors or vendors is negligible and does not substantially change the number of personnel on-campus.

Baseline Year

For the purposes of the EIR, the 2019-2020 AY is the baseline year for the analysis. The 2019-2022 AY data is being used as it is the most recent year of pre-pandemic in-person campus operations. The data available for the 2019-2020 AY is the baseline used for full-time equivalent students (FTES) students, full-time-equivalent (FTE) employees, and auxiliary employees.

Campus Population

The campus population is the total number of on-campus FTES, faculty, and staff. This number is used in the EIR analysis to reflect existing and anticipated people on campus as it conservatively captures the number of people on campus during typical campus operations. The

2 The California State University, 2022/2023 Summary of Campus Capacity – Instructional and Faculty Office Space, available at: https://www.calstate.edu/impact-of-the-csu/government/Advocacy-and-State-Relations/legislativereports1/csu-report-utilization-of-facilities.pdf, accessed August 15, 2022.

3 California State University, Long Beach, Auxiliaries, available at: https://www.csulb.edu/auxiliaries, accessed July 27, 2022.

projected campus population does not limit future student enrollment or total population at CSULB.

Faculty and Staff

Faculty and staff include the FTE employees and auxiliary employees that would be necessary to support students at CSULB.

Faculty/Staff Household Members

Faculty/staff household members include the individuals who will be living on-campus with faculty and staff in the Faculty and Staff Housing.

Full-Time Equivalent Employees

CSU defines FTE employees as the total "full-time equivalent positions" filled by all full-time and part-time employees. This includes all employees with the exception of student employees, other intermittent or casual employees, and faculty teaching in extension, special sessions and summer sessions. FTE employees include the following occupational groups: faculty, professional/ technician, office/administrative support, service occupations, construction/maintenance/ transportation, and management. The FTE employees are derived from the CSU Employee Profile, which include reports dating back to 2003.[4]

Full-Time Equivalent Student

Student enrollment at CSULB is measured using "full-time equivalent students" or "FTES." For the purposes of this EIR, FTES is the most appropriate measure of student population at the campus because it aids the measurement of facilities utilization and need for additional instructional space by providing information on student course loads and scheduling of classes. Because CSULB is an urban commuter campus, students at CSULB can be part-time or full-time and have different attendance patterns. Thus, one student who takes 15 units is considered one FTES.

Horizon Year

The horizon year is an estimated target date for the master plan, and shows the existing and anticipated facilities necessary to accommodate a specified enrollment at the estimated target date or planning horizon. For the purposes of the EIR, the year 2035 is the horizon year for analysis.

Off-Campus

The term off-campus applies to FTES that receive instruction remotely and are pursuing educational experience off-campus. These FTES do not receive face-to-face (F2F) instruction. Instruction is physically located outside of the CSULB campus and is provided virtually (e.g., via the web). Off-campus FTES are not included in the total campus population numbers.

On-Campus

The term on-campus applies to FTES, faculty, and staff that attend classes or work in-person at the CSULB main campus and Beachside Village.

On-Site Other Earned

The CSU *2022/2023 Summary of Campus Capacity – Instructional and Faculty Office Space* defines On-Site Other Earned as the "percentage and number of annualized FTE not earned in

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[4] The California State University, Faculty and Staff, Employee Profile, Previous Year's Reports, Employee Profile 2009-2019, available at: https://www.calstate.edu/csu-system/faculty-staff/employee-profile/Pages/past-reports.aspx, accessed June 29, 2022.

lecture or lab modes of instruction on main campus. Instruction may be face-to-face (students meet with an in-person instructor in a contained space setting), synchronous (instruction that occurs at a regular scheduled time, e.g., a televised broadcast), or asynchronous (instruction that is not conducted face-to-face and does not occur at a regularly scheduled time, e.g., via the web)."[5]

This term is only used for space planning purposes to calculate the necessary physical space that a campus requires for students for classrooms or labs; it does not account for students that use facilities within the CSULB campus that are outside of a classroom or lab such as administrative, housing, student and campus support, athletic, or mobility, circulation, and open space facilities. Thus, to be conservative, all students categorized as On-Site Other Earned are considered students that would be physically on campus, regardless of whether the students utilize classrooms or labs, and are included in the total campus population.

3 CAMPUS POPULATION

3.1 Baseline Year

3.1.1 Full-Time Equivalent Students

Each campus is required to prepare a Summary of Campus Capacity report, which reflects changes in a campus's annual FTES capacity (i.e., assignable academic square footage) compared to the previous fiscal year. Those changes are the result of major capital outlay projects, minor capital outlay projects and other adjustments to the campus space inventories since the last report. The summary correlates assignable square-foot capacities with FTES enrollment and faculty positions for existing and projected space needs. The Summary of Campus Capacity report is prepared in conjunction with the development of the CSU's annual Capital Outlay Program and Five-Year Capital Improvement Program, and encompasses classrooms, upper- and lower-division class laboratories and faculty offices.[6]

Based on CSULB's 2020-2021 Summary of Campus Capacity data provided by program planners in the CSULB Design & Construction Services Department, CSULB enrolled 31,197 FTES in AY 2019-2020. As provided in the data, 7.44 percent, or 2,321 FTES, of the 2019-2020 AY FTES were off-campus. As discussed, the term off-campus applies to FTES that receive instruction remotely and are pursuing educational experience off-campus.

Additionally, 6.3 percent, or 1,977 FTES, of the total AY FTES are categorized as On-Site Other Earned. As discussed, all students categorized as On-Site Other Earned are considered students that would be physically on campus and are included in the total campus population (i.e., on-campus).

Thus, as shown in Table 1, there were 28,876 FTES on-campus in AY 2019-2020.

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5 The California State University, 2022/2023 Summary of Campus Capacity – Instructional and Faculty Office Space, available at: https://www.calstate.edu/impact-of-the-csu/government/Advocacy-and-State-Relations/legislativereports1/csu-report-utilization-of-facilities.pdf, accessed August 15, 2022.

6 The California State University, Strategic Planning, available at: https://www.calstate.edu/csu-system/doing-business-with-the-csu/capital-planning-design-construction/project-center/academic-project/Pages/Strategic-Planning.aspx, accessed September 8, 2022.

Table 1: 2019-2020 Academic Year Full-Time Equivalent Students

	Academic Year 2019-2020
Full-Time Equivalent Students	31,197
Off-Campus Full-Time Equivalent Students[1]	2,321
On-Site Other Earned Full-Time Equivalent Students[2]	1,977
Total On-Campus Full-Time Equivalent Students[3]	28,876

[1] 7.44% of AY FTES
[2] 6.3% of AY FTES
[3] Subtract Off-Campus FTES from AY FTES

3.1.2 Faculty and Staff

CSULB had 3,295 FTE employees[7] and 528 auxiliary employees,[8] for a total of 3,823 faculty and staff in AY 2019-2020.

3.1.3 Total Campus Population

Table 2 shows the campus population in the baseline year. The total campus population for AY 2019-2020 is 32,699. This number excludes the 2,321 FTES that are categorized as off-campus in Table 1.

Table 2: 2019-2020 Academic Year Campus Population

	Academic Year 2019-2020
Full-Time Equivalent Students (On-Campus)	**28,876**
Faculty and Staff	**3,823**
Full-Time Equivalent Employees	*3,295*
Auxiliary Employees	*528*
Total Campus Population	**32,699**

3.2 Horizon Year

3.2.1 Full-Time Equivalent Students

The Master Plan Update makes reasonable assumptions about projected student enrollment through the 2035 horizon year and assumes annual compounded growth of one percent (1%) throughout the life of the Master Plan Update, reflecting typical annual growth per the CSU's Office of the Chancellor, which consults with the state legislature regarding the funding needed to support enrollment growth. As shown in Table 3, with the application of the annual compounded one percent growth rate to the 2019-2020 AY FTES, there would be 36,013 FTES enrolled in AY 2034-2035.

[7] The California State University, The Employees of the California State University, available at: https://www.calstate.edu/csu-system/faculty-staff/employee-profile/documents/fall2019csuprofiles.pdf, accessed August 15, 2022

[8] Provided by program planners in the Design & Construction Services Department at CSULB on June 28, 2022

Table 3: Projection of Academic Year Full-Time Equivalent Students to 2035 Horizon Year

Year	Growth Rate	Academic Year FTES
2019-2020 (Baseline)	N/A	31,197
2020-2021	101%	31,497
2021-2022	101%	31,799
2022-2023	101%	32,104
2023-2024	101%	32,415
2024-2025	101%	32,723
2025-2026	101%	33,038
2026-2027	101%	33,355
2027-2028	101%	33,676
2028-2029	101%	34,000
2029-2030	101%	34,327
2030-2031	101%	34,658
2031-2032	101%	34,991
2032-2033	101%	35,329
2033-2034	101%	35,669
2034-2035 (Horizon)	101%	36,013

On-Campus and Off-Campus Full-Time Equivalent Students

The COVID-19 pandemic (beginning March 2020) has led to increases in telework and remote/online learning. For the purposes of a more conservative analysis, it is assumed that the same proportion of off-campus FTES from the baseline year would be applied through the horizon year. Thus, it is assumed that 7.44 percent of the total 2034-2035 AY FTES, or 2,679 FTES, would be off-campus.

Thus, as shown in Table 4, there would be 33,334 FTES on-campus and 2,680 FTES off-campus in AY 2034-2035.

Table 4: Projection of Full-Time Equivalent Students to 2035 Horizon Year

Year	Growth Rate	Academic Year FTES	Off-Campus FTES (7.44% of AY FTES)	Total On-Campus FTES[1,2]
2019-2020 (Baseline)	**N/A**	**31,197**	**2,321**	**28,876**
2020-2021	101%	31,497	2,343	29,153
2021-2022	101%	31,799	2,366	29,433
2022-2023	101%	32,104	2,389	29,715
2023-2024	101%	32,415	2,411	30,001
2024-2025	101%	32,723	2,435	30,289
2025-2026	101%	33,038	2,458	30,580
2026-2027	101%	33,355	2,482	30,873
2027-2028	101%	33,676	2,506	31,171
2028-2029	101%	34,000	2,530	31,470
2029-2030	101%	34,327	2,554	31,773
2030-2031	101%	34,658	2,579	32,079

Table 4: Projection of Full-Time Equivalent Students to 2035 Horizon Year

2031-2032	101%	34,991	2,603	32,388
2032-2033	101%	35,329	2,628	32,700
2033-2034	101%	35,669	2,654	33,015
2034-2035 (Horizon)	**101%**	**36,013**	**2,680**	**33,334**

[1] Subtract Off-Campus FTES from AY FTES

[2] On-Campus FTES includes On-Site Other Earned FTES. 6.3% of AY FTES is considered On-Site Other Earned FTES.

3.2.2 Faculty and Staff

CSULB determines faculty and staff needs by evaluating the historical relationships between students and faculty as well as between students and staffing. Historical data of the number of FTE employees from the 2009 through 2019 CSU faculty and staff employee profiles are shown in Table 5. Based on historical data of the employee profiles,[9] the Master Plan Update assumes that the number of FTE employees would increase proportionately with the student population at a rate of approximately 1.16 percent annually through horizon year 2035. Table 5 shows the number and changes in FTE employees from 2009 to 2019.

Table 5: Historical Data of Full-Time Equivalent Employees from 2009-2019

Year	FTE Employee	Percent Change (%)
2009	2,944	-
2010	2,839	-3.57
2011	2,878	1.37
2012	2,820	-2.02
2013	2,873	1.88
2014	3,005	4.59
2015	3,111	3.53
2016	3,188	2.48
2017	3,224	1.13
2018	3,263	1.21
2019 (Baseline)	3,295	0.98
Average Percent Change		*1.16*

Additionally, as directed by program planners in the Design & Construction Services Department at CSULB, the same proportionate growth of 1.16 percent determined for FTE employees is applied to auxiliary employees through horizon year 2035. As shown in Table 6, with the application of the annual compounded 1.16 percent growth rate to the 2019-2020 FTE employees and auxiliary employees, there would be 4,546 faculty and staff in horizon year 2034-2035.

[9] The California State University, Faculty and Staff, Employee Profile, Previous Year's Reports, Employee Profile 2009-2019, available at: https://www.calstate.edu/csu-system/faculty-staff/employee-profile/Pages/past-reports.aspx, accessed June 29, 2022

Table 6: Projection of Faculty and Staff to 2035 Horizon Year

Year	Growth Rate	FTE Employees	Auxiliary Employees	Total Faculty and Staff[1]
2019-2020 (Baseline)	**N/A**	**3,295**	**528**	**3,823**
2020-2021	101.16%	3,333	534	3,868
2021-2022	101.16%	3,372	540	3,912
2022-2023	101.16%	3,411	547	3,958
2023-2024	101.16%	3,451	553	4,004
2024-2025	101.16%	3,491	559	4,050
2025-2026	101.16%	3,531	566	4,097
2026-2027	101.16%	3,572	572	4,145
2027-2028	101.16%	3,614	579	4,193
2028-2029	101.16%	3,656	586	4,241
2029-2030	101.16%	3,698	593	4,291
2030-2031	101.16%	3,741	599	4,340
2031-2032	101.16%	3,784	606	4,391
2032-2033	101.16%	3,828	613	4,442
2033-2034	101.16%	3,873	621	4,493
2034-2035 (Horizon)	**101.16%**	**3,918**	**628**	**4,546**

[1]Totals may not add up precisely due to rounding.

Due to the provision of housing for faculty and staff as part of the Master Plan Update, it is anticipated that a small portion of faculty and staff would reside on campus with other members of their household. Based on historic data of non-student residents living on the CSULB campus of two people per unit, provided by program planners in the Design & Construction Services Department at CSULB on December 14, 2022, it is anticipated that an additional 285 individuals associated with faculty and staff households would also be living on-campus.

3.2.3 Total Campus Population

The total campus population comprises on-campus students, faculty and staff, and faculty/staff household members. In horizon year 2035, the total on-campus population is anticipated to be 38,165, which includes FTES, FTE employees, auxiliary employees, and faculty/staff household members. Table 7, Existing and Anticipated Total Campus Population, depicts the breakdown of total on-campus FTES, faculty and staff, and faculty/staff household members under baseline year conditions and at the Master Plan Update 2035 horizon year.

Table 7: Existing and Anticipated Total Campus Population

	Academic Year 2019-2020	Master Plan Update Horizon Year 2035	Change (+/-)
Full-Time Equivalent Students (On-Campus)	28,876	33,334	+4,458
Faculty and Staff	3,823	4,546	+723
Faculty/Staff Household Members	0	285	+285
Total Campus Population	**32,699**	**38,165**	**+5,466**

4 CONCLUSION

In summary, the EIR assumes a total campus population of 38,165 for horizon year 2035.

5 REFERENCES

California State University, State University Administrative Manual, Section VII, Five-Year Capital Improvement Program Procedures and Formats for Capital Outlay Submission: Section 9100.1, Basis for Major Capital Outlay and Five-Year Capital Improvement Program Submissions: 3. Full Time Equivalent Student Enrollment Allocations, available at: https://calstate.policystat.com/policy/6657509/latest/

———, 2022/2023 Summary of Campus Capacity – Instructional and Faculty Office Space, available at: https://www.calstate.edu/impact-of-the-csu/government/Advocacy-and-State-Relations/legislativereports1/csu-report-utilization-of-facilities.pdf

———, Faculty and Staff, Employee Profile, Previous Year's Reports, Employee Profile 2009-2019, available at: https://www.calstate.edu/csu-system/faculty-staff/employee-profile/Pages/past-reports.aspx

———, Strategic Planning, available at: https://www.calstate.edu/csu-system/doing-business-with-the-csu/capital-planning-design-construction/project-center/academic-project/Pages/Strategic-Planning.aspx

———, The Employees of the California State University, available at: https://www.calstate.edu/csu-system/faculty-staff/employee-profile/documents/fall2019csuprofiles.pdf

California State University, Long Beach, Auxiliaries, available at: https://www.csulb.edu/auxiliaries

APPENDIX C

Air Quality, Greenhouse Gas Emissions, and Energy Calculations

Engineering Replacement Building

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	71.00	1000sqft	1.63	71,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2028

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 -

Land Use -

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	42.00
tblTripsAndVMT	HaulingTripNumber	299.00	344.00
tblTripsAndVMT	HaulingTripNumber	0.00	396.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,745.00
tblTripsAndVMT	HaulingTripNumber	0.00	210.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.1189	1.1055	1.0892	2.4800e-003	0.2182	0.0406	0.2589	0.0884	0.0383	0.1267	0.0000	217.7881	217.7881	0.0398	6.6500e-003	220.7665
2027	0.1830	1.5032	1.7436	3.7400e-003	0.0540	0.0523	0.1063	0.0147	0.0504	0.0651	0.0000	320.3464	320.3464	0.0422	9.8000e-003	324.3207
2028	0.0521	0.1309	0.2046	3.8000e-004	5.0800e-003	5.5400e-003	0.0106	1.3600e-003	5.1400e-003	6.5100e-003	0.0000	33.6583	33.6583	8.2900e-003	9.2000e-004	34.1388
Maximum	**0.1830**	**1.5032**	**1.7436**	**3.7400e-003**	**0.2182**	**0.0523**	**0.2589**	**0.0884**	**0.0504**	**0.1267**	**0.0000**	**320.3464**	**320.3464**	**0.0422**	**9.8000e-003**	**324.3207**

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					
2026	0.1189	1.1055	1.0892	2.4800e-003	0.0998	0.0406	0.1404	0.0379	0.0383	0.0762	0.0000	217.7879	217.7879	0.0398	6.6500e-003	220.7663
2027	0.1830	1.5032	1.7436	3.7400e-003	0.0540	0.0523	0.1063	0.0147	0.0504	0.0651	0.0000	320.3462	320.3462	0.0422	9.8000e-003	324.3205
2028	0.0521	0.1309	0.2046	3.8000e-004	5.0800e-003	5.5400e-003	0.0106	1.3600e-003	5.1400e-003	6.5100e-003	0.0000	33.6583	33.6583	8.2900e-003	9.2000e-004	34.1388
Maximum	**0.1830**	**1.5032**	**1.7436**	**3.7400e-003**	**0.0998**	**0.0523**	**0.1404**	**0.0379**	**0.0504**	**0.0762**	**0.0000**	**320.3462**	**320.3462**	**0.0422**	**9.8000e-003**	**324.3205**

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**	**42.71**	**0.00**	**31.52**	**48.37**	**0.00**	**25.47**	**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	**5-1-2026**	**7-31-2026**	0.4958	0.4958
2	**8-1-2026**	**10-31-2026**	0.4445	0.4445
3	**11-1-2026**	**1-31-2027**	0.4249	0.4249
4	**2-1-2027**	**4-30-2027**	0.4101	0.4101
5	**5-1-2027**	**7-31-2027**	0.4228	0.4228
6	**8-1-2027**	**10-31-2027**	0.4234	0.4234
7	**11-1-2027**	**1-31-2028**	0.3542	0.3542
8	**2-1-2028**	**4-30-2028**	0.1130	0.1130
		Highest	0.4958	0.4958

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	0.2896	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003
Energy	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	204.7915	204.7915	0.0129	2.6500e-003	205.9013
Mobile	0.2729	0.3100	2.7757	6.3800e-003	0.7653	4.3900e-003	0.7696	0.2042	4.0900e-003	0.2083	0.0000	590.6852	590.6852	0.0380	0.0261	599.4006
Waste						0.0000	0.0000		0.0000	0.0000	1.0962	0.0000	1.0962	0.0648	0.0000	2.7157
Water						0.0000	0.0000		0.0000	0.0000	11.0754	80.6154	91.6908	1.1444	0.0277	128.5498
Total	**0.5693**	**0.3725**	**2.8292**	**6.7600e-003**	**0.7653**	**9.1400e-003**	**0.7744**	**0.2042**	**8.8400e-003**	**0.2131**	**12.1716**	**876.0938**	**888.2653**	**1.2600**	**0.0564**	**936.5692**

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	0.2896	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003
Energy	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	204.7915	204.7915	0.0129	2.6500e-003	205.9013
Mobile	0.2729	0.3100	2.7757	6.3800e-003	0.7653	4.3900e-003	0.7696	0.2042	4.0900e-003	0.2083	0.0000	590.6852	590.6852	0.0380	0.0261	599.4006
Waste						0.0000	0.0000		0.0000	0.0000	1.0962	0.0000	1.0962	0.0648	0.0000	2.7157
Water						0.0000	0.0000		0.0000	0.0000	11.0754	80.6154	91.6908	1.1444	0.0277	128.5498
Total	**0.5693**	**0.3725**	**2.8292**	**6.7600e-003**	**0.7653**	**9.1400e-003**	**0.7744**	**0.2042**	**8.8400e-003**	**0.2131**	**12.1716**	**876.0938**	**888.2653**	**1.2600**	**0.0564**	**936.5692**

	ROG	NOx	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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	

4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	3/14/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 106,500; Non-Residential Outdoor: 35,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	344.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	12.00	1,745.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	210.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					0.0323	0.0000	0.0323	4.9000e-003	0.0000	4.9000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3634	45.3634	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**0.0323**	**0.0117**	**0.0441**	**4.9000e-003**	**0.0109**	**0.0158**	**0.0000**	**45.3634**	**45.3634**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5000e-004	0.0215	6.0800e-003	9.0000e-005	2.9600e-003	1.6000e-004	3.1200e-003	8.1000e-004	1.5000e-004	9.6000e-004	0.0000	9.3157	9.3157	5.5000e-004	1.4800e-003	9.7711
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	7.2000e-004	4.9000e-004	7.4400e-003	2.0000e-005	3.0700e-003	2.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1813	2.1813	5.0000e-005	5.0000e-005	2.1976
Total	**1.0700e-003**	**0.0220**	**0.0135**	**1.1000e-004**	**6.0300e-003**	**1.8000e-004**	**6.2000e-003**	**1.6200e-003**	**1.6000e-004**	**1.7900e-003**	**0.0000**	**11.4971**	**11.4971**	**6.0000e-004**	**1.5300e-003**	**11.9686**

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					0.0120	0.0000	0.0120	1.8100e-003	0.0000	1.8100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3633	45.3633	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**0.0120**	**0.0117**	**0.0237**	**1.8100e-003**	**0.0109**	**0.0128**	**0.0000**	**45.3633**	**45.3633**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5000e-004	0.0215	6.0800e-003	9.0000e-005	2.9600e-003	1.6000e-004	3.1200e-003	8.1000e-004	1.5000e-004	9.6000e-004	0.0000	9.3157	9.3157	5.5000e-004	1.4800e-003	9.7711
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	7.2000e-004	4.9000e-004	7.4400e-003	2.0000e-005	3.0700e-003	2.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1813	2.1813	5.0000e-005	5.0000e-005	2.1976
Total	**1.0700e-003**	**0.0220**	**0.0135**	**1.1000e-004**	**6.0300e-003**	**1.8000e-004**	**6.2000e-003**	**1.6200e-003**	**1.6000e-004**	**1.7900e-003**	**0.0000**	**11.4971**	**11.4971**	**6.0000e-004**	**1.5300e-003**	**11.9686**

3.3 Grading - 2026

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					0.1558	0.0000	0.1558	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8323	39.8323	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.1558**	**0.0109**	**0.1667**	**0.0753**	**0.0100**	**0.0854**	**0.0000**	**39.8323**	**39.8323**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2026

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	4.0000e-004	0.0248	7.0000e-003	1.1000e-004	3.4100e-003	1.8000e-004	3.5900e-003	9.4000e-004	1.7000e-004	1.1100e-003	0.0000	10.7239	10.7239	6.4000e-004	1.7100e-003	11.2481
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	5.7000e-004	3.8000e-004	5.8600e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.7170	1.7170	4.0000e-005	4.0000e-005	1.7298
Total	**9.7000e-004**	**0.0252**	**0.0129**	**1.3000e-004**	**5.8200e-003**	**1.9000e-004**	**6.0200e-003**	**1.5800e-003**	**1.8000e-004**	**1.7600e-003**	**0.0000**	**12.4409**	**12.4409**	**6.8000e-004**	**1.7500e-003**	**12.9778**

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					0.0577	0.0000	0.0577	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8322	39.8322	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.0577**	**0.0109**	**0.0686**	**0.0279**	**0.0100**	**0.0380**	**0.0000**	**39.8322**	**39.8322**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2026

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	4.0000e-004	0.0248	7.0000e-003	1.1000e-004	3.4100e-003	1.8000e-004	3.5900e-003	9.4000e-004	1.7000e-004	1.1100e-003	0.0000	10.7239	10.7239	6.4000e-004	1.7100e-003	11.2481
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	5.7000e-004	3.8000e-004	5.8600e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.7170	1.7170	4.0000e-005	4.0000e-005	1.7298
Total	**9.7000e-004**	**0.0252**	**0.0129**	**1.3000e-004**	**5.8200e-003**	**1.9000e-004**	**6.0200e-003**	**1.5800e-003**	**1.8000e-004**	**1.7600e-003**	**0.0000**	**12.4409**	**12.4409**	**6.8000e-004**	**1.7500e-003**	**12.9778**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.4582	0.5473	9.7000e-004		0.0173	0.0173		0.0167	0.0167	0.0000	79.9182	79.9182	0.0131	0.0000	80.2444
Total	**0.0583**	**0.4582**	**0.5473**	**9.7000e-004**		**0.0173**	**0.0173**		**0.0167**	**0.0167**	**0.0000**	**79.9182**	**79.9182**	**0.0131**	**0.0000**	**80.2444**

3.4 Building Construction - 2026

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	4.5000e-004	0.0276	7.7800e-003	1.2000e-004	3.7900e-003	2.0000e-004	3.9900e-003	1.0400e-003	1.9000e-004	1.2300e-003	0.0000	11.9155	11.9155	7.1000e-004	1.8900e-003	12.4979
Vendor	5.3000e-004	0.0200	7.3300e-003	9.0000e-005	3.3300e-003	1.1000e-004	3.4400e-003	9.6000e-004	1.1000e-004	1.0700e-003	0.0000	8.9227	8.9227	3.2000e-004	1.3000e-003	9.3172
Worker	2.6000e-003	1.7700e-003	0.0269	9.0000e-005	0.0111	5.0000e-005	0.0112	2.9500e-003	5.0000e-005	3.0000e-003	0.0000	7.8981	7.8981	1.7000e-004	1.8000e-004	7.9569
Total	**3.5800e-003**	**0.0493**	**0.0420**	**3.0000e-004**	**0.0182**	**3.6000e-004**	**0.0186**	**4.9500e-003**	**3.5000e-004**	**5.3000e-003**	**0.0000**	**28.7363**	**28.7363**	**1.2000e-003**	**3.3700e-003**	**29.7719**

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	0.0583	0.4582	0.5473	9.7000e-004		0.0173	0.0173		0.0167	0.0167	0.0000	79.9181	79.9181	0.0131	0.0000	80.2443
Total	**0.0583**	**0.4582**	**0.5473**	**9.7000e-004**		**0.0173**	**0.0173**		**0.0167**	**0.0167**	**0.0000**	**79.9181**	**79.9181**	**0.0131**	**0.0000**	**80.2443**

3.4 Building Construction - 2026

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	4.5000e-004	0.0276	7.7800e-003	1.2000e-004	3.7900e-003	2.0000e-004	3.9900e-003	1.0400e-003	1.9000e-004	1.2300e-003	0.0000	11.9155	11.9155	7.1000e-004	1.8900e-003	12.4979
Vendor	5.3000e-004	0.0200	7.3300e-003	9.0000e-005	3.3300e-003	1.1000e-004	3.4400e-003	9.6000e-004	1.1000e-004	1.0700e-003	0.0000	8.9227	8.9227	3.2000e-004	1.3000e-003	9.3172
Worker	2.6000e-003	1.7700e-003	0.0269	9.0000e-005	0.0111	5.0000e-005	0.0112	2.9500e-003	5.0000e-005	3.0000e-003	0.0000	7.8981	7.8981	1.7000e-004	1.8000e-004	7.9569
Total	**3.5800e-003**	**0.0493**	**0.0420**	**3.0000e-004**	**0.0182**	**3.6000e-004**	**0.0186**	**4.9500e-003**	**3.5000e-004**	**5.3000e-003**	**0.0000**	**28.7363**	**28.7363**	**1.2000e-003**	**3.3700e-003**	**29.7719**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1729	1.3589	1.6233	2.8800e-003		0.0512	0.0512		0.0494	0.0494	0.0000	237.0300	237.0300	0.0387	0.0000	237.9975
Total	**0.1729**	**1.3589**	**1.6233**	**2.8800e-003**		**0.0512**	**0.0512**		**0.0494**	**0.0494**	**0.0000**	**237.0300**	**237.0300**	**0.0387**	**0.0000**	**237.9975**

3.4 Building Construction - 2027

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	1.3200e-003	0.0808	0.0232	3.5000e-004	0.0112	5.9000e-004	0.0118	3.0800e-003	5.6000e-004	3.6500e-003	0.0000	34.6133	34.6133	2.1000e-003	5.5100e-003	36.3066
Vendor	1.5500e-003	0.0588	0.0215	2.6000e-004	9.8800e-003	3.3000e-004	0.0102	2.8500e-003	3.2000e-004	3.1700e-003	0.0000	25.9367	25.9367	9.4000e-004	3.7800e-003	27.0851
Worker	7.2900e-003	4.7900e-003	0.0755	2.5000e-004	0.0329	1.5000e-004	0.0331	8.7500e-003	1.4000e-004	8.8900e-003	0.0000	22.7664	22.7664	4.5000e-004	5.2000e-004	22.9316
Total	**0.0102**	**0.1444**	**0.1202**	**8.6000e-004**	**0.0540**	**1.0700e-003**	**0.0551**	**0.0147**	**1.0200e-003**	**0.0157**	**0.0000**	**83.3164**	**83.3164**	**3.4900e-003**	**9.8100e-003**	**86.3232**

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	0.1729	1.3589	1.6233	2.8800e-003		0.0512	0.0512		0.0494	0.0494	0.0000	237.0298	237.0298	0.0387	0.0000	237.9973
Total	**0.1729**	**1.3589**	**1.6233**	**2.8800e-003**		**0.0512**	**0.0512**		**0.0494**	**0.0494**	**0.0000**	**237.0298**	**237.0298**	**0.0387**	**0.0000**	**237.9973**

3.4 Building Construction - 2027

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	1.3200e-003	0.0808	0.0232	3.5000e-004	0.0112	5.9000e-004	0.0118	3.0800e-003	5.6000e-004	3.6500e-003	0.0000	34.6133	34.6133	2.1000e-003	5.5100e-003	36.3066
Vendor	1.5500e-003	0.0588	0.0215	2.6000e-004	9.8800e-003	3.3000e-004	0.0102	2.8500e-003	3.2000e-004	3.1700e-003	0.0000	25.9367	25.9367	9.4000e-004	3.7800e-003	27.0851
Worker	7.2900e-003	4.7900e-003	0.0755	2.5000e-004	0.0329	1.5000e-004	0.0331	8.7500e-003	1.4000e-004	8.8900e-003	0.0000	22.7664	22.7664	4.5000e-004	5.2000e-004	22.9316
Total	**0.0102**	**0.1444**	**0.1202**	**8.6000e-004**	**0.0540**	**1.0700e-003**	**0.0551**	**0.0147**	**1.0200e-003**	**0.0157**	**0.0000**	**83.3164**	**83.3164**	**3.4900e-003**	**9.8100e-003**	**86.3232**

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.1118	0.1847	2.8000e-004		5.1800e-003	5.1800e-003		4.7800e-003	4.7800e-003	0.0000	24.7244	24.7244	7.8400e-003	0.0000	24.9204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0120**	**0.1118**	**0.1847**	**2.8000e-004**		**5.1800e-003**	**5.1800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**24.7244**	**24.7244**	**7.8400e-003**	**0.0000**	**24.9204**

3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0129	3.7700e-003	5.0000e-005	1.8100e-003	9.0000e-005	1.9000e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.4548	5.4548	3.4000e-004	8.7000e-004	5.7219
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	6.3000e-004	4.0000e-004	6.5300e-003	2.0000e-005	3.0000e-003	1.0000e-005	3.0100e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	2.0177	2.0177	4.0000e-005	4.0000e-005	2.0320
Total	**8.4000e-004**	**0.0133**	**0.0103**	**7.0000e-005**	**4.8100e-003**	**1.0000e-004**	**4.9100e-003**	**1.3000e-003**	**1.0000e-004**	**1.4000e-003**	**0.0000**	**7.4725**	**7.4725**	**3.8000e-004**	**9.1000e-004**	**7.7540**

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	0.0120	0.1118	0.1847	2.8000e-004		5.1800e-003	5.1800e-003		4.7800e-003	4.7800e-003	0.0000	24.7244	24.7244	7.8400e-003	0.0000	24.9203
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0120**	**0.1118**	**0.1847**	**2.8000e-004**		**5.1800e-003**	**5.1800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**24.7244**	**24.7244**	**7.8400e-003**	**0.0000**	**24.9203**

3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0129	3.7700e-003	5.0000e-005	1.8100e-003	9.0000e-005	1.9000e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.4548	5.4548	3.4000e-004	8.7000e-004	5.7219
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	6.3000e-004	4.0000e-004	6.5300e-003	2.0000e-005	3.0000e-003	1.0000e-005	3.0100e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	2.0177	2.0177	4.0000e-005	4.0000e-005	2.0320
Total	**8.4000e-004**	**0.0133**	**0.0103**	**7.0000e-005**	**4.8100e-003**	**1.0000e-004**	**4.9100e-003**	**1.3000e-003**	**1.0000e-004**	**1.4000e-003**	**0.0000**	**7.4725**	**7.4725**	**3.8000e-004**	**9.1000e-004**	**7.7540**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.0383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0391**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

3.6 Architectural Coating - 2028

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	6.0000e-005	4.0000e-005	6.0000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1848	0.1848	0.0000	0.0000	0.1861
Total	**6.0000e-005**	**4.0000e-005**	**6.0000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1848**	**0.1848**	**0.0000**	**0.0000**	**0.1861**

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					
Archit. Coating	0.0383					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	**0.0391**	**5.7300e-003**	**9.0500e-003**	**1.0000e-005**		**2.6000e-004**	**2.6000e-004**		**2.6000e-004**	**2.6000e-004**	**0.0000**	**1.2766**	**1.2766**	**7.0000e-005**	**0.0000**	**1.2784**

3.6 Architectural Coating - 2028

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	6.0000e-005	4.0000e-005	6.0000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.1848	0.1848	0.0000	0.0000	0.1861
Total	**6.0000e-005**	**4.0000e-005**	**6.0000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.1848**	**0.1848**	**0.0000**	**0.0000**	**0.1861**

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	0.2729	0.3100	2.7757	6.3800e-003	0.7653	4.3900e-003	0.7696	0.2042	4.0900e-003	0.2083	0.0000	590.6852	590.6852	0.0380	0.0261	599.4006
Unmitigated	0.2729	0.3100	2.7757	6.3800e-003	0.7653	4.3900e-003	0.7696	0.2042	4.0900e-003	0.2083	0.0000	590.6852	590.6852	0.0380	0.0261	599.4006

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	799.46	134.90	78.81	2,032,505	2,032,505
Total	799.46	134.90	78.81	2,032,505	2,032,505

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

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	136.7441	136.7441	0.0115	1.4000e-003	137.4495
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	136.7441	136.7441	0.0115	1.4000e-003	137.4495
NaturalGas Mitigated	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0474	68.0474	1.3000e-003	1.2500e-003	68.4518
NaturalGas Unmitigated	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0474	68.0474	1.3000e-003	1.2500e-003	68.4518

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					
Research & Development	1.27516e+006	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0474	68.0474	1.3000e-003	1.2500e-003	68.4518
Total		**6.8800e-003**	**0.0625**	**0.0525**	**3.8000e-004**		**4.7500e-003**	**4.7500e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**68.0474**	**68.0474**	**1.3000e-003**	**1.2500e-003**	**68.4518**

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					
Research & Development	1.27516e+006	6.8800e-003	0.0625	0.0525	3.8000e-004		4.7500e-003	4.7500e-003		4.7500e-003	4.7500e-003	0.0000	68.0474	68.0474	1.3000e-003	1.2500e-003	68.4518
Total		**6.8800e-003**	**0.0625**	**0.0525**	**3.8000e-004**		**4.7500e-003**	**4.7500e-003**		**4.7500e-003**	**4.7500e-003**	**0.0000**	**68.0474**	**68.0474**	**1.3000e-003**	**1.2500e-003**	**68.4518**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	771060	136.7441	0.0115	1.4000e-003	137.4495
Total		**136.7441**	**0.0115**	**1.4000e-003**	**137.4495**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	771060	136.7441	0.0115	1.4000e-003	137.4495
Total		**136.7441**	**0.0115**	**1.4000e-003**	**137.4495**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2896	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003
Unmitigated	0.2896	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2566					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003
Total	**0.2896**	**1.0000e-005**	**9.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7600e-003**	**1.7600e-003**	**0.0000**	**0.0000**	**1.8800e-003**

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	0.0329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2566					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	9.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7600e-003	1.7600e-003	0.0000	0.0000	1.8800e-003
Total	**0.2896**	**1.0000e-005**	**9.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7600e-003**	**1.7600e-003**	**0.0000**	**0.0000**	**1.8800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	91.6908	1.1444	0.0277	128.5498
Unmitigated	91.6908	1.1444	0.0277	128.5498

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	34.9103 / 0	91.6908	1.1444	0.0277	128.5498
Total		**91.6908**	**1.1444**	**0.0277**	**128.5498**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	34.9103 / 0	91.6908	1.1444	0.0277	128.5498
Total		**91.6908**	**1.1444**	**0.0277**	**128.5498**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.0962	0.0648	0.0000	2.7157
Unmitigated	1.0962	0.0648	0.0000	2.7157

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	5.4	1.0962	0.0648	0.0000	2.7157
Total		**1.0962**	**0.0648**	**0.0000**	**2.7157**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	5.4	1.0962	0.0648	0.0000	2.7157
Total		**1.0962**	**0.0648**	**0.0000**	**2.7157**

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

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

Engineering Replacement Building

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	71.00	1000sqft	1.63	71,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2028

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 -

Land Use -

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	42.00
tblTripsAndVMT	HaulingTripNumber	299.00	344.00
tblTripsAndVMT	HaulingTripNumber	0.00	396.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,745.00
tblTripsAndVMT	HaulingTripNumber	0.00	210.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	1.4079	13.8765	13.9842	0.0296	7.3518	0.5532	7.8566	3.4975	0.5167	3.9622	0.0000	2,920.1072	2,920.1072	0.6792	0.0873	2,958.8818
2027	1.4042	11.4624	13.3997	0.0287	0.4214	0.4007	0.8221	0.1143	0.3864	0.5006	0.0000	2,714.3371	2,714.3371	0.3563	0.0824	2,747.7941
2028	7.8357	5.9244	9.3074	0.0172	0.2328	0.2516	0.4844	0.0625	0.2325	0.2950	0.0000	1,694.7249	1,694.7249	0.4312	0.0477	1,719.7268
Maximum	**7.8357**	**13.8765**	**13.9842**	**0.0296**	**7.3518**	**0.5532**	**7.8566**	**3.4975**	**0.5167**	**3.9622**	**0.0000**	**2,920.1072**	**2,920.1072**	**0.6792**	**0.0873**	**2,958.8818**

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					
2026	1.4079	13.8765	13.9842	0.0296	2.8933	0.5532	3.3981	1.3417	0.5167	1.8064	0.0000	2,920.1072	2,920.1072	0.6792	0.0873	2,958.8818
2027	1.4042	11.4624	13.3997	0.0287	0.4214	0.4007	0.8221	0.1143	0.3864	0.5006	0.0000	2,714.3371	2,714.3371	0.3563	0.0824	2,747.7941
2028	7.8357	5.9244	9.3074	0.0172	0.2328	0.2516	0.4844	0.0625	0.2325	0.2950	0.0000	1,694.7249	1,694.7249	0.4312	0.0477	1,719.7268
Maximum	**7.8357**	**13.8765**	**13.9842**	**0.0296**	**2.8933**	**0.5532**	**3.3981**	**1.3417**	**0.5167**	**1.8064**	**0.0000**	**2,920.1072**	**2,920.1072**	**0.6792**	**0.0873**	**2,958.8818**

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	55.69	0.00	48.66	58.67	0.00	45.31	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Energy	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Mobile	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956
Total	**3.7225**	**2.4254**	**20.9667**	**0.0504**	**5.6920**	**0.0582**	**5.7501**	**1.5169**	**0.0559**	**1.5728**		**5,340.1970**	**5,340.1970**	**0.3077**	**0.2087**	**5,410.0651**

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	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Energy	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Mobile	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956
Total	**3.7225**	**2.4254**	**20.9667**	**0.0504**	**5.6920**	**0.0582**	**5.7501**	**1.5169**	**0.0559**	**1.5728**		**5,340.1970**	**5,340.1970**	**0.3077**	**0.2087**	**5,410.0651**

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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	
4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	3/14/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 106,500; Non-Residential Outdoor: 35,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	344.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	12.00	1,745.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	210.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					1.5038	0.0000	1.5038	0.2277	0.0000	0.2277			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**1.5038**	**0.5452**	**2.0491**	**0.2277**	**0.5091**	**0.7367**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0509**	**0.9707**	**0.6527**	**5.4800e-003**	**0.2852**	**7.9800e-003**	**0.2932**	**0.0769**	**7.6100e-003**	**0.0845**		**594.3139**	**594.3139**	**0.0307**	**0.0783**	**618.4234**

3.2 Demolition - 2026

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					0.5572	0.0000	0.5572	0.0844	0.0000	0.0844			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.5572**	**0.5452**	**1.1024**	**0.0844**	**0.5091**	**0.5934**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0509**	**0.9707**	**0.6527**	**5.4800e-003**	**0.2852**	**7.9800e-003**	**0.2932**	**0.0769**	**7.6100e-003**	**0.0845**		**594.3139**	**594.3139**	**0.0307**	**0.0783**	**618.4234**

3.3 Grading - 2026

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0189	1.0692	0.3163	4.8700e-003	0.1574	8.1900e-003	0.1656	0.0432	7.8300e-003	0.0510		537.0617	537.0617	0.0319	0.0854	563.3108
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0452**	**1.0849**	**0.6021**	**5.7600e-003**	**0.2692**	**8.7300e-003**	**0.2779**	**0.0728**	**8.3300e-003**	**0.0811**		**627.0045**	**627.0045**	**0.0337**	**0.0873**	**653.8514**

3.3 Grading - 2026

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0189	1.0692	0.3163	4.8700e-003	0.1574	8.1900e-003	0.1656	0.0432	7.8300e-003	0.0510		537.0617	537.0617	0.0319	0.0854	563.3108
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0452**	**1.0849**	**0.6021**	**5.7600e-003**	**0.2692**	**8.7300e-003**	**0.2779**	**0.0728**	**8.3300e-003**	**0.0811**		**627.0045**	**627.0045**	**0.0337**	**0.0873**	**653.8514**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0105	0.5940	0.1757	2.7000e-003	0.0875	4.5500e-003	0.0920	0.0240	4.3500e-003	0.0283		298.3676	298.3676	0.0177	0.0475	312.9505
Vendor	0.0124	0.4324	0.1641	2.0700e-003	0.0768	2.5400e-003	0.0794	0.0221	2.4300e-003	0.0246		223.3581	223.3581	7.9500e-003	0.0325	233.2275
Worker	0.0604	0.0359	0.6572	2.0500e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		206.8686	206.8686	4.1000e-003	4.2700e-003	208.2432
Total	**0.0833**	**1.0624**	**0.9971**	**6.8200e-003**	**0.4214**	**8.3400e-003**	**0.4297**	**0.1143**	**7.9300e-003**	**0.1222**		**728.5943**	**728.5943**	**0.0298**	**0.0842**	**754.4212**

3.4 Building Construction - 2026

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0105	0.5940	0.1757	2.7000e-003	0.0875	4.5500e-003	0.0920	0.0240	4.3500e-003	0.0283		298.3676	298.3676	0.0177	0.0475	312.9505
Vendor	0.0124	0.4324	0.1641	2.0700e-003	0.0768	2.5400e-003	0.0794	0.0221	2.4300e-003	0.0246		223.3581	223.3581	7.9500e-003	0.0325	233.2275
Worker	0.0604	0.0359	0.6572	2.0500e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		206.8686	206.8686	4.1000e-003	4.2700e-003	208.2432
Total	**0.0833**	**1.0624**	**0.9971**	**6.8200e-003**	**0.4214**	**8.3400e-003**	**0.4297**	**0.1143**	**7.9300e-003**	**0.1222**		**728.5943**	**728.5943**	**0.0298**	**0.0842**	**754.4212**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0104	0.5874	0.1770	2.6400e-003	0.0875	4.5200e-003	0.0920	0.0240	4.3200e-003	0.0283		292.2288	292.2288	0.0178	0.0465	306.5246
Vendor	0.0122	0.4293	0.1625	2.0300e-003	0.0768	2.5300e-003	0.0794	0.0221	2.4200e-003	0.0246		218.9061	218.9061	7.9300e-003	0.0318	228.5932
Worker	0.0570	0.0329	0.6209	1.9900e-003	0.2571	1.1700e-003	0.2583	0.0682	1.0800e-003	0.0693		201.0498	201.0498	3.7400e-003	4.0500e-003	202.3515
Total	**0.0796**	**1.0496**	**0.9604**	**6.6600e-003**	**0.4214**	**8.2200e-003**	**0.4296**	**0.1143**	**7.8200e-003**	**0.1221**		**712.1847**	**712.1847**	**0.0294**	**0.0824**	**737.4693**

3.4 Building Construction - 2027

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0104	0.5874	0.1770	2.6400e-003	0.0875	4.5200e-003	0.0920	0.0240	4.3200e-003	0.0283		292.2288	292.2288	0.0178	0.0465	306.5246
Vendor	0.0122	0.4293	0.1625	2.0300e-003	0.0768	2.5300e-003	0.0794	0.0221	2.4200e-003	0.0246		218.9061	218.9061	7.9300e-003	0.0318	228.5932
Worker	0.0570	0.0329	0.6209	1.9900e-003	0.2571	1.1700e-003	0.2583	0.0682	1.0800e-003	0.0693		201.0498	201.0498	3.7400e-003	4.0500e-003	202.3515
Total	**0.0796**	**1.0496**	**0.9604**	**6.6600e-003**	**0.4214**	**8.2200e-003**	**0.4296**	**0.1143**	**7.8200e-003**	**0.1221**		**712.1847**	**712.1847**	**0.0294**	**0.0824**	**737.4693**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.809 6**	**1,297.809 6**	**0.4114**		**1,308.095 1**

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	0.0103	0.5813	0.1784	2.5900e-003	0.0875	4.4900e-003	0.0919	0.0240	4.2900e-003	0.0283		286.1861	286.1861	0.0178	0.0455	300.2012
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0408**	**0.5985**	**0.5123**	**3.6900e-003**	**0.2328**	**5.1100e-003**	**0.2379**	**0.0625**	**4.8600e-003**	**0.0674**		**396.9153**	**396.9153**	**0.0198**	**0.0477**	**411.6318**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**	**0.0000**	**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	0.0103	0.5813	0.1784	2.5900e-003	0.0875	4.4900e-003	0.0919	0.0240	4.2900e-003	0.0283		286.1861	286.1861	0.0178	0.0455	300.2012
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0408**	**0.5985**	**0.5123**	**3.6900e-003**	**0.2328**	**5.1100e-003**	**0.2379**	**0.0625**	**4.8600e-003**	**0.0674**		**396.9153**	**396.9153**	**0.0198**	**0.0477**	**411.6318**

3.6 Architectural Coating - 2028

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					
Archit. Coating	7.6531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**7.8240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0117	6.5900e-003	0.1284	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.5882	42.5882	7.5000e-004	8.4000e-004	42.8579
Total	**0.0117**	**6.5900e-003**	**0.1284**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.5882**	**42.5882**	**7.5000e-004**	**8.4000e-004**	**42.8579**

3.6 Architectural Coating - 2028

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					
Archit. Coating	7.6531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**7.8240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0117	6.5900e-003	0.1284	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.5882	42.5882	7.5000e-004	8.4000e-004	42.8579
Total	**0.0117**	**6.5900e-003**	**0.1284**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.5882**	**42.5882**	**7.5000e-004**	**8.4000e-004**	**42.8579**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956
Unmitigated	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	799.46	134.90	78.81	2,032,505	2,032,505
Total	799.46	134.90	78.81	2,032,505	2,032,505

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
NaturalGas Unmitigated	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529

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					
Research & Development	3493.59	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Total		**0.0377**	**0.3425**	**0.2877**	**2.0600e-003**		**0.0260**	**0.0260**		**0.0260**	**0.0260**		**411.0105**	**411.0105**	**7.8800e-003**	**7.5400e-003**	**413.4529**

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					
Research & Development	3.49359	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Total		**0.0377**	**0.3425**	**0.2877**	**2.0600e-003**		**0.0260**	**0.0260**		**0.0260**	**0.0260**		**411.0105**	**411.0105**	**7.8800e-003**	**7.5400e-003**	**413.4529**

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	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Unmitigated	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166

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	0.1803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Total	**1.5868**	**7.0000e-005**	**7.2300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0166**

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	0.1803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Total	**1.5868**	**7.0000e-005**	**7.2300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0166**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Engineering Replacement Building

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	71.00	1000sqft	1.63	71,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use -

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	10.00	42.00
tblConstructionPhase	NumDays	10.00	43.00
tblTripsAndVMT	HaulingTripNumber	299.00	344.00
tblTripsAndVMT	HaulingTripNumber	0.00	396.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,745.00
tblTripsAndVMT	HaulingTripNumber	0.00	210.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	1.4079	13.8765	13.9842	0.0296	7.3518	0.5532	7.8566	3.4975	0.5167	3.9622	0.0000	2,920.1072	2,920.1072	0.6792	0.0873	2,958.8818
2027	1.4042	11.4624	13.3997	0.0287	0.4214	0.4007	0.8221	0.1143	0.3864	0.5006	0.0000	2,714.3371	2,714.3371	0.3563	0.0824	2,747.7941
2028	7.8357	5.9244	9.3074	0.0172	0.2328	0.2516	0.4844	0.0625	0.2325	0.2950	0.0000	1,694.7249	1,694.7249	0.4312	0.0477	1,719.7268
Maximum	**7.8357**	**13.8765**	**13.9842**	**0.0296**	**7.3518**	**0.5532**	**7.8566**	**3.4975**	**0.5167**	**3.9622**	**0.0000**	**2,920.1072**	**2,920.1072**	**0.6792**	**0.0873**	**2,958.8818**

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					
2026	1.4079	13.8765	13.9842	0.0296	2.8933	0.5532	3.3981	1.3417	0.5167	1.8064	0.0000	2,920.1072	2,920.1072	0.6792	0.0873	2,958.8818
2027	1.4042	11.4624	13.3997	0.0287	0.4214	0.4007	0.8221	0.1143	0.3864	0.5006	0.0000	2,714.3371	2,714.3371	0.3563	0.0824	2,747.7941
2028	7.8357	5.9244	9.3074	0.0172	0.2328	0.2516	0.4844	0.0625	0.2325	0.2950	0.0000	1,694.7249	1,694.7249	0.4312	0.0477	1,719.7268
Maximum	**7.8357**	**13.8765**	**13.9842**	**0.0296**	**2.8933**	**0.5532**	**3.3981**	**1.3417**	**0.5167**	**1.8064**	**0.0000**	**2,920.1072**	**2,920.1072**	**0.6792**	**0.0873**	**2,958.8818**

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	55.69	0.00	48.66	58.67	0.00	45.31	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Energy	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Mobile	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956
Total	**3.7225**	**2.4254**	**20.9667**	**0.0504**	**5.6920**	**0.0582**	**5.7501**	**1.5169**	**0.0559**	**1.5728**		**5,340.1970**	**5,340.1970**	**0.3077**	**0.2087**	**5,410.0651**

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	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Energy	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Mobile	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.1710	4,929.1710	0.2998	0.2011	4,996.5956
Total	**3.7225**	**2.4254**	**20.9667**	**0.0504**	**5.6920**	**0.0582**	**5.7501**	**1.5169**	**0.0559**	**1.5728**		**5,340.1970**	**5,340.1970**	**0.3077**	**0.2087**	**5,410.0651**

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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	
4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	3/14/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 106,500; Non-Residential Outdoor: 35,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	344.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	12.00	1,745.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	210.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					1.5038	0.0000	1.5038	0.2277	0.0000	0.2277			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**1.5038**	**0.5452**	**2.0491**	**0.2277**	**0.5091**	**0.7367**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0509**	**0.9707**	**0.6527**	**5.4800e-003**	**0.2852**	**7.9800e-003**	**0.2932**	**0.0769**	**7.6100e-003**	**0.0845**		**594.3139**	**594.3139**	**0.0307**	**0.0783**	**618.4234**

3.2 Demolition - 2026

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					0.5572	0.0000	0.5572	0.0844	0.0000	0.0844			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.793 4	2,325.793 4	0.5866		2,340.458 4
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.5572**	**0.5452**	**1.1024**	**0.0844**	**0.5091**	**0.5934**	**0.0000**	**2,325.793 4**	**2,325.793 4**	**0.5866**		**2,340.458 4**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0509**	**0.9707**	**0.6527**	**5.4800e-003**	**0.2852**	**7.9800e-003**	**0.2932**	**0.0769**	**7.6100e-003**	**0.0845**		**594.3139**	**594.3139**	**0.0307**	**0.0783**	**618.4234**

3.3 Grading - 2026

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0189	1.0692	0.3163	4.8700e-003	0.1574	8.1900e-003	0.1656	0.0432	7.8300e-003	0.0510		537.0617	537.0617	0.0319	0.0854	563.3108
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0452**	**1.0849**	**0.6021**	**5.7600e-003**	**0.2692**	**8.7300e-003**	**0.2779**	**0.0728**	**8.3300e-003**	**0.0811**		**627.0045**	**627.0045**	**0.0337**	**0.0873**	**653.8514**

3.3 Grading - 2026

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0189	1.0692	0.3163	4.8700e-003	0.1574	8.1900e-003	0.1656	0.0432	7.8300e-003	0.0510		537.0617	537.0617	0.0319	0.0854	563.3108
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0452**	**1.0849**	**0.6021**	**5.7600e-003**	**0.2692**	**8.7300e-003**	**0.2779**	**0.0728**	**8.3300e-003**	**0.0811**		**627.0045**	**627.0045**	**0.0337**	**0.0873**	**653.8514**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0105	0.5940	0.1757	2.7000e-003	0.0875	4.5500e-003	0.0920	0.0240	4.3500e-003	0.0283		298.3676	298.3676	0.0177	0.0475	312.9505
Vendor	0.0124	0.4324	0.1641	2.0700e-003	0.0768	2.5400e-003	0.0794	0.0221	2.4300e-003	0.0246		223.3581	223.3581	7.9500e-003	0.0325	233.2275
Worker	0.0604	0.0359	0.6572	2.0500e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		206.8686	206.8686	4.1000e-003	4.2700e-003	208.2432
Total	**0.0833**	**1.0624**	**0.9971**	**6.8200e-003**	**0.4214**	**8.3400e-003**	**0.4297**	**0.1143**	**7.9300e-003**	**0.1222**		**728.5943**	**728.5943**	**0.0298**	**0.0842**	**754.4212**

3.4 Building Construction - 2026

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0105	0.5940	0.1757	2.7000e-003	0.0875	4.5500e-003	0.0920	0.0240	4.3500e-003	0.0283		298.3676	298.3676	0.0177	0.0475	312.9505
Vendor	0.0124	0.4324	0.1641	2.0700e-003	0.0768	2.5400e-003	0.0794	0.0221	2.4300e-003	0.0246		223.3581	223.3581	7.9500e-003	0.0325	233.2275
Worker	0.0604	0.0359	0.6572	2.0500e-003	0.2571	1.2500e-003	0.2583	0.0682	1.1500e-003	0.0693		206.8686	206.8686	4.1000e-003	4.2700e-003	208.2432
Total	**0.0833**	**1.0624**	**0.9971**	**6.8200e-003**	**0.4214**	**8.3400e-003**	**0.4297**	**0.1143**	**7.9300e-003**	**0.1222**		**728.5943**	**728.5943**	**0.0298**	**0.0842**	**754.4212**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0104	0.5874	0.1770	2.6400e-003	0.0875	4.5200e-003	0.0920	0.0240	4.3200e-003	0.0283		292.2288	292.2288	0.0178	0.0465	306.5246
Vendor	0.0122	0.4293	0.1625	2.0300e-003	0.0768	2.5300e-003	0.0794	0.0221	2.4200e-003	0.0246		218.9061	218.9061	7.9300e-003	0.0318	228.5932
Worker	0.0570	0.0329	0.6209	1.9900e-003	0.2571	1.1700e-003	0.2583	0.0682	1.0800e-003	0.0693		201.0498	201.0498	3.7400e-003	4.0500e-003	202.3515
Total	**0.0796**	**1.0496**	**0.9604**	**6.6600e-003**	**0.4214**	**8.2200e-003**	**0.4296**	**0.1143**	**7.8200e-003**	**0.1221**		**712.1847**	**712.1847**	**0.0294**	**0.0824**	**737.4693**

3.4 Building Construction - 2027

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	0.0104	0.5874	0.1770	2.6400e-003	0.0875	4.5200e-003	0.0920	0.0240	4.3200e-003	0.0283		292.2288	292.2288	0.0178	0.0465	306.5246
Vendor	0.0122	0.4293	0.1625	2.0300e-003	0.0768	2.5300e-003	0.0794	0.0221	2.4200e-003	0.0246		218.9061	218.9061	7.9300e-003	0.0318	228.5932
Worker	0.0570	0.0329	0.6209	1.9900e-003	0.2571	1.1700e-003	0.2583	0.0682	1.0800e-003	0.0693		201.0498	201.0498	3.7400e-003	4.0500e-003	202.3515
Total	**0.0796**	**1.0496**	**0.9604**	**6.6600e-003**	**0.4214**	**8.2200e-003**	**0.4296**	**0.1143**	**7.8200e-003**	**0.1221**		**712.1847**	**712.1847**	**0.0294**	**0.0824**	**737.4693**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.809 6	1,297.809 6	0.4114		1,308.095 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.809 6**	**1,297.809 6**	**0.4114**		**1,308.095 1**

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	0.0103	0.5813	0.1784	2.5900e-003	0.0875	4.4900e-003	0.0919	0.0240	4.2900e-003	0.0283		286.1861	286.1861	0.0178	0.0455	300.2012
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0408**	**0.5985**	**0.5123**	**3.6900e-003**	**0.2328**	**5.1100e-003**	**0.2379**	**0.0625**	**4.8600e-003**	**0.0674**		**396.9153**	**396.9153**	**0.0198**	**0.0477**	**411.6318**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**	**0.0000**	**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	0.0103	0.5813	0.1784	2.5900e-003	0.0875	4.4900e-003	0.0919	0.0240	4.2900e-003	0.0283		286.1861	286.1861	0.0178	0.0455	300.2012
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0408**	**0.5985**	**0.5123**	**3.6900e-003**	**0.2328**	**5.1100e-003**	**0.2379**	**0.0625**	**4.8600e-003**	**0.0674**		**396.9153**	**396.9153**	**0.0198**	**0.0477**	**411.6318**

3.6 Architectural Coating - 2028

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					
Archit. Coating	7.6531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**7.8240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0117	6.5900e-003	0.1284	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.5882	42.5882	7.5000e-004	8.4000e-004	42.8579
Total	**0.0117**	**6.5900e-003**	**0.1284**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.5882**	**42.5882**	**7.5000e-004**	**8.4000e-004**	**42.8579**

3.6 Architectural Coating - 2028

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					
Archit. Coating	7.6531					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**7.8240**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0117	6.5900e-003	0.1284	4.2000e-004	0.0559	2.4000e-004	0.0561	0.0148	2.2000e-004	0.0150		42.5882	42.5882	7.5000e-004	8.4000e-004	42.8579
Total	**0.0117**	**6.5900e-003**	**0.1284**	**4.2000e-004**	**0.0559**	**2.4000e-004**	**0.0561**	**0.0148**	**2.2000e-004**	**0.0150**		**42.5882**	**42.5882**	**7.5000e-004**	**8.4000e-004**	**42.8579**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.171 0	4,929.171 0	0.2998	0.2011	4,996.595 6
Unmitigated	2.0980	2.0828	20.6718	0.0483	5.6920	0.0321	5.7241	1.5169	0.0299	1.5468		4,929.171 0	4,929.171 0	0.2998	0.2011	4,996.595 6

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	799.46	134.90	78.81	2,032,505	2,032,505
Total	799.46	134.90	78.81	2,032,505	2,032,505

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
NaturalGas Unmitigated	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529

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					
Research & Development	3493.59	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Total		**0.0377**	**0.3425**	**0.2877**	**2.0600e-003**		**0.0260**	**0.0260**		**0.0260**	**0.0260**		**411.0105**	**411.0105**	**7.8800e-003**	**7.5400e-003**	**413.4529**

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					
Research & Development	3.49359	0.0377	0.3425	0.2877	2.0600e-003		0.0260	0.0260		0.0260	0.0260		411.0105	411.0105	7.8800e-003	7.5400e-003	413.4529
Total		**0.0377**	**0.3425**	**0.2877**	**2.0600e-003**		**0.0260**	**0.0260**		**0.0260**	**0.0260**		**411.0105**	**411.0105**	**7.8800e-003**	**7.5400e-003**	**413.4529**

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	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Unmitigated	1.5868	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166

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	0.1803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Total	**1.5868**	**7.0000e-005**	**7.2300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0166**

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	0.1803					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.4058					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.7000e-004	7.0000e-005	7.2300e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0155	0.0155	4.0000e-005		0.0166
Total	**1.5868**	**7.0000e-005**	**7.2300e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0155**	**0.0155**	**4.0000e-005**		**0.0166**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

New Parkside Housing Village

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,000.00	Dwelling Unit	26.32	200,000.00	1000

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2026
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 -

Land Use - per info provided by CSULB; 1000 beds = 1000 residents

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	44.00
tblConstructionPhase	NumDays	440.00	348.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	35.00	42.00
tblLandUse	LandUseSquareFeet	1,000,000.00	200,000.00
tblLandUse	Population	2,860.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	452.00	516.00
tblTripsAndVMT	HaulingTripNumber	0.00	616.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,436.00
tblTripsAndVMT	HaulingTripNumber	0.00	294.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.2849	2.1200	2.8229	7.6500e-003	0.6524	0.0811	0.7335	0.1957	0.0754	0.2711	0.0000	694.7222	694.7222	0.0959	0.0262	704.9358
2025	0.4512	2.4554	4.9896	0.0147	1.1346	0.0780	1.2127	0.3035	0.0734	0.3769	0.0000	1,350.0984	1,350.0984	0.0994	0.0610	1,370.7632
2026	0.6580	0.2299	0.4438	9.2000e-004	0.0407	0.0102	0.0510	0.0108	9.5200e-003	0.0204	0.0000	82.8022	82.8022	0.0150	1.9000e-003	83.7413
Maximum	**0.6580**	**2.4554**	**4.9896**	**0.0147**	**1.1346**	**0.0811**	**1.2127**	**0.3035**	**0.0754**	**0.3769**	**0.0000**	**1,350.0984**	**1,350.0984**	**0.0994**	**0.0610**	**1,370.7632**

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

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					
2024	0.2849	2.1200	2.8229	7.6500e-003	0.4913	0.0811	0.5724	0.1393	0.0754	0.2147	0.0000	694.7218	694.7218	0.0959	0.0262	704.9354
2025	0.4512	2.4554	4.9896	0.0147	1.1346	0.0780	1.2127	0.3035	0.0734	0.3769	0.0000	1,350.0981	1,350.0981	0.0994	0.0610	1,370.7629
2026	0.6580	0.2299	0.4438	9.2000e-004	0.0407	0.0102	0.0510	0.0108	9.5200e-003	0.0204	0.0000	82.8022	82.8022	0.0150	1.9000e-003	83.7412
Maximum	**0.6580**	**2.4554**	**4.9896**	**0.0147**	**1.1346**	**0.0811**	**1.2127**	**0.3035**	**0.0754**	**0.3769**	**0.0000**	**1,350.0981**	**1,350.0981**	**0.0994**	**0.0610**	**1,370.7629**

	ROG	**NOx**	**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**	**8.82**	**0.00**	**8.07**	**11.06**	**0.00**	**8.44**	**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	**5-1-2024**	**7-31-2024**	0.9514	0.9514
2	**8-1-2024**	**10-31-2024**	0.9222	0.9222
3	**11-1-2024**	**1-31-2025**	0.7665	0.7665
4	**2-1-2025**	**4-30-2025**	0.7071	0.7071
5	**5-1-2025**	**7-31-2025**	0.7208	0.7208
6	**8-1-2025**	**10-31-2025**	0.7259	0.7259

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

7	**11-1-2025**	**1-31-2026**	0.6038	0.6038
8	**2-1-2026**	**4-30-2026**	0.7736	0.7736
		Highest	0.9514	0.9514

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	4.3701	0.3780	16.6598	0.0168		1.0120	1.0120		1.0120	1.0120	106.2191	220.9621	327.1812	0.3329	7.2100e-003	337.6520
Energy	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	1,379.9481	1,379.9481	0.0710	0.0198	1,387.6134
Mobile	2.4855	2.9260	25.5227	0.0585	6.6531	0.0421	6.6953	1.7756	0.0392	1.8148	0.0000	5,412.4039	5,412.4039	0.3467	0.2385	5,492.1326
Waste						0.0000	0.0000		0.0000	0.0000	93.3758	0.0000	93.3758	5.5184	0.0000	231.3347
Water						0.0000	0.0000		0.0000	0.0000	20.6704	231.3859	252.0563	2.1426	0.0525	321.2647
Total	**6.9260**	**3.9061**	**42.4387**	**0.0791**	**6.6531**	**1.1028**	**7.7560**	**1.7756**	**1.0999**	**2.8755**	**220.2653**	**7,244.7000**	**7,464.9653**	**8.4115**	**0.3179**	**7,769.9975**

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

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

Category	tons/yr										MT/yr					
Area	4.3701	0.3780	16.6598	0.0168		1.0120	1.0120		1.0120	1.0120	106.2191	220.9621	327.1812	0.3329	7.2100e-003	337.6520
Energy	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	1,379.9481	1,379.9481	0.0710	0.0198	1,387.6134
Mobile	2.4855	2.9260	25.5227	0.0585	6.6531	0.0421	6.6953	1.7756	0.0392	1.8148	0.0000	5,412.4039	5,412.4039	0.3467	0.2385	5,492.1326
Waste						0.0000	0.0000		0.0000	0.0000	93.3758	0.0000	93.3758	5.5184	0.0000	231.3347
Water						0.0000	0.0000		0.0000	0.0000	20.6704	231.3859	252.0563	2.1426	0.0525	321.2647
Total	**6.9260**	**3.9061**	**42.4387**	**0.0791**	**6.6531**	**1.1028**	**7.7560**	**1.7756**	**1.0999**	**2.8755**	**220.2653**	**7,244.7000**	**7,464.9653**	**8.4115**	**0.3179**	**7,769.9975**

	ROG	NOx	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	5/1/2024	6/30/2024	5	43	
2	Grading	Grading	7/1/2024	8/30/2024	5	45	
3	Building Construction	Building Construction	8/31/2024	12/31/2025	5	348	
4	Paving	Paving	1/1/2026	2/27/2026	5	42	
5	Architectural Coating	Architectural Coating	2/28/2026	4/30/2026	5	44	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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

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

Demolition	6	15.00	0.00	516.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	616.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	720.00	107.00	2,436.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	294.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	144.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					0.0489	0.0000	0.0489	7.4100e-003	0.0000	7.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.4489	0.4237	8.3000e-004		0.0206	0.0206		0.0192	0.0192	0.0000	73.0915	73.0915	0.0205	0.0000	73.6028
Total	**0.0482**	**0.4489**	**0.4237**	**8.3000e-004**	**0.0489**	**0.0206**	**0.0696**	**7.4100e-003**	**0.0192**	**0.0266**	**0.0000**	**73.0915**	**73.0915**	**0.0205**	**0.0000**	**73.6028**

Unmitigated Construction Off-Site

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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	tons/yr										MT/yr					
Hauling	5.4000e-004	0.0329	8.9300e-003	1.5000e-004	4.4400e-003	2.4000e-004	4.6800e-003	1.2200e-003	2.3000e-004	1.4400e-003	0.0000	14.5129	14.5129	8.2000e-004	2.3100e-003	15.2208
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	9.4000e-004	6.9000e-004	9.8000e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.6881	2.6881	6.0000e-005	7.0000e-005	2.7094
Total	**1.4800e-003**	**0.0336**	**0.0187**	**1.8000e-004**	**7.9800e-003**	**2.6000e-004**	**8.2400e-003**	**2.1600e-003**	**2.5000e-004**	**2.4000e-003**	**0.0000**	**17.2010**	**17.2010**	**8.8000e-004**	**2.3800e-003**	**17.9302**

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					0.0181	0.0000	0.0181	2.7400e-003	0.0000	2.7400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0482	0.4489	0.4237	8.3000e-004		0.0206	0.0206		0.0192	0.0192	0.0000	73.0914	73.0914	0.0205	0.0000	73.6027
Total	**0.0482**	**0.4489**	**0.4237**	**8.3000e-004**	**0.0181**	**0.0206**	**0.0388**	**2.7400e-003**	**0.0192**	**0.0219**	**0.0000**	**73.0914**	**73.0914**	**0.0205**	**0.0000**	**73.6027**

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.4000e-004	0.0329	8.9300e-003	1.5000e-004	4.4400e-003	2.4000e-004	4.6800e-003	1.2200e-003	2.3000e-004	1.4400e-003	0.0000	14.5129	14.5129	8.2000e-004	2.3100e-003	15.2208
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	9.4000e-004	6.9000e-004	9.8000e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.6881	2.6881	6.0000e-005	7.0000e-005	2.7094
Total	**1.4800e-003**	**0.0336**	**0.0187**	**1.8000e-004**	**7.9800e-003**	**2.6000e-004**	**8.2400e-003**	**2.1600e-003**	**2.5000e-004**	**2.4000e-003**	**0.0000**	**17.2010**	**17.2010**	**8.8000e-004**	**2.3800e-003**	**17.9302**

3.3 Grading - 2024

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					0.2071	0.0000	0.2071	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0724	0.7285	0.6238	1.4000e-003		0.0301	0.0301		0.0276	0.0276	0.0000	122.6689	122.6689	0.0397	0.0000	123.6608
Total	**0.0724**	**0.7285**	**0.6238**	**1.4000e-003**	**0.2071**	**0.0301**	**0.2371**	**0.0822**	**0.0276**	**0.1099**	**0.0000**	**122.6689**	**122.6689**	**0.0397**	**0.0000**	**123.6608**

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

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	6.4000e-004	0.0393	0.0107	1.7000e-004	5.3000e-003	2.8000e-004	5.5800e-003	1.4600e-003	2.7000e-004	1.7200e-003	0.0000	17.3255	17.3255	9.8000e-004	2.7500e-003	18.1705
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	1.3100e-003	9.6000e-004	0.0137	4.0000e-005	4.9400e-003	3.0000e-005	4.9600e-003	1.3100e-003	2.0000e-005	1.3400e-003	0.0000	3.7508	3.7508	9.0000e-005	9.0000e-005	3.7806
Total	**1.9500e-003**	**0.0403**	**0.0244**	**2.1000e-004**	**0.0102**	**3.1000e-004**	**0.0105**	**2.7700e-003**	**2.9000e-004**	**3.0600e-003**	**0.0000**	**21.0763**	**21.0763**	**1.0700e-003**	**2.8400e-003**	**21.9511**

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					0.0767	0.0000	0.0767	0.0305	0.0000	0.0305	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0724	0.7285	0.6238	1.4000e-003		0.0301	0.0301		0.0276	0.0276	0.0000	122.6688	122.6688	0.0397	0.0000	123.6606
Total	**0.0724**	**0.7285**	**0.6238**	**1.4000e-003**	**0.0767**	**0.0301**	**0.1068**	**0.0305**	**0.0276**	**0.0581**	**0.0000**	**122.6688**	**122.6688**	**0.0397**	**0.0000**	**123.6606**

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

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	6.4000e-004	0.0393	0.0107	1.7000e-004	5.3000e-003	2.8000e-004	5.5800e-003	1.4600e-003	2.7000e-004	1.7200e-003	0.0000	17.3255	17.3255	9.8000e-004	2.7500e-003	18.1705
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	1.3100e-003	9.6000e-004	0.0137	4.0000e-005	4.9400e-003	3.0000e-005	4.9600e-003	1.3100e-003	2.0000e-005	1.3400e-003	0.0000	3.7508	3.7508	9.0000e-005	9.0000e-005	3.7806
Total	**1.9500e-003**	**0.0403**	**0.0244**	**2.1000e-004**	**0.0102**	**3.1000e-004**	**0.0105**	**2.7700e-003**	**2.9000e-004**	**3.0600e-003**	**0.0000**	**21.0763**	**21.0763**	**1.0700e-003**	**2.8400e-003**	**21.9511**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0640	0.5848	0.7033	1.1700e-003		0.0267	0.0267		0.0251	0.0251	0.0000	100.8544	100.8544	0.0239	0.0000	101.4506
Total	**0.0640**	**0.5848**	**0.7033**	**1.1700e-003**		**0.0267**	**0.0267**		**0.0251**	**0.0251**	**0.0000**	**100.8544**	**100.8544**	**0.0239**	**0.0000**	**101.4506**

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

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	6.3000e-004	0.0388	0.0106	1.7000e-004	5.2400e-003	2.8000e-004	5.5200e-003	1.4400e-003	2.7000e-004	1.7100e-003	0.0000	17.1286	17.1286	9.7000e-004	2.7200e-003	17.9640
Vendor	4.9100e-003	0.1781	0.0664	8.4000e-004	0.0294	9.9000e-004	0.0303	8.4700e-003	9.5000e-004	9.4200e-003	0.0000	81.6462	81.6462	2.7800e-003	0.0119	85.2459
Worker	0.0912	0.0670	0.9521	2.8500e-003	0.3436	1.8800e-003	0.3455	0.0913	1.7300e-003	0.0930	0.0000	261.0552	261.0552	6.2700e-003	6.4400e-003	263.1305
Total	**0.0968**	**0.2840**	**1.0291**	**3.8600e-003**	**0.3782**	**3.1500e-003**	**0.3814**	**0.1012**	**2.9500e-003**	**0.1041**	**0.0000**	**359.8301**	**359.8301**	**0.0100**	**0.0210**	**366.3404**

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	0.0640	0.5848	0.7033	1.1700e-003		0.0267	0.0267		0.0251	0.0251	0.0000	100.8542	100.8542	0.0239	0.0000	101.4505
Total	**0.0640**	**0.5848**	**0.7033**	**1.1700e-003**		**0.0267**	**0.0267**		**0.0251**	**0.0251**	**0.0000**	**100.8542**	**100.8542**	**0.0239**	**0.0000**	**101.4505**

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

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	6.3000e-004	0.0388	0.0106	1.7000e-004	5.2400e-003	2.8000e-004	5.5200e-003	1.4400e-003	2.7000e-004	1.7100e-003	0.0000	17.1286	17.1286	9.7000e-004	2.7200e-003	17.9640
Vendor	4.9100e-003	0.1781	0.0664	8.4000e-004	0.0294	9.9000e-004	0.0303	8.4700e-003	9.5000e-004	9.4200e-003	0.0000	81.6462	81.6462	2.7800e-003	0.0119	85.2459
Worker	0.0912	0.0670	0.9521	2.8500e-003	0.3436	1.8800e-003	0.3455	0.0913	1.7300e-003	0.0930	0.0000	261.0552	261.0552	6.2700e-003	6.4400e-003	263.1305
Total	**0.0968**	**0.2840**	**1.0291**	**3.8600e-003**	**0.3782**	**3.1500e-003**	**0.3814**	**0.1012**	**2.9500e-003**	**0.1041**	**0.0000**	**359.8301**	**359.8301**	**0.0100**	**0.0210**	**366.3404**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

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

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	1.8800e-003	0.1157	0.0320	5.0000e-004	0.0157	8.4000e-004	0.0166	4.3200e-003	8.0000e-004	5.1200e-003	0.0000	50.4542	50.4542	2.9200e-003	8.0200e-003	52.9176
Vendor	0.0144	0.5318	0.1962	2.4600e-003	0.0881	2.9700e-003	0.0910	0.0254	2.8400e-003	0.0283	0.0000	240.4771	240.4771	8.3600e-003	0.0349	251.0952
Worker	0.2565	0.1806	2.6624	8.2500e-003	1.0309	5.3700e-003	1.0362	0.2738	4.9400e-003	0.2787	0.0000	756.5123	756.5123	0.0170	0.0181	762.3170
Total	**0.2728**	**0.8281**	**2.8906**	**0.0112**	**1.1346**	**9.1800e-003**	**1.1438**	**0.3035**	**8.5800e-003**	**0.3121**	**0.0000**	**1,047.4436**	**1,047.4436**	**0.0283**	**0.0610**	**1,066.3297**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

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

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	1.8800e-003	0.1157	0.0320	5.0000e-004	0.0157	8.4000e-004	0.0166	4.3200e-003	8.0000e-004	5.1200e-003	0.0000	50.4542	50.4542	2.9200e-003	8.0200e-003	52.9176
Vendor	0.0144	0.5318	0.1962	2.4600e-003	0.0881	2.9700e-003	0.0910	0.0254	2.8400e-003	0.0283	0.0000	240.4771	240.4771	8.3600e-003	0.0349	251.0952
Worker	0.2565	0.1806	2.6624	8.2500e-003	1.0309	5.3700e-003	1.0362	0.2738	4.9400e-003	0.2787	0.0000	756.5123	756.5123	0.0170	0.0181	762.3170
Total	**0.2728**	**0.8281**	**2.8906**	**0.0112**	**1.1346**	**9.1800e-003**	**1.1438**	**0.3035**	**8.5800e-003**	**0.3121**	**0.0000**	**1,047.4436**	**1,047.4436**	**0.0283**	**0.0610**	**1,066.3297**

3.5 Paving - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3804
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0192**	**0.1802**	**0.3061**	**4.8000e-004**		**8.7900e-003**	**8.7900e-003**		**8.0900e-003**	**8.0900e-003**	**0.0000**	**42.0404**	**42.0404**	**0.0136**	**0.0000**	**42.3804**

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0184	5.2000e-003	8.0000e-005	2.5300e-003	1.3000e-004	2.6600e-003	6.9000e-004	1.3000e-004	8.2000e-004	0.0000	7.9617	7.9617	4.7000e-004	1.2700e-003	8.3508
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.5000e-004	8.3800e-003	3.0000e-005	3.4600e-003	2.0000e-005	3.4700e-003	9.2000e-004	2.0000e-005	9.3000e-004	0.0000	2.4584	2.4584	5.0000e-005	6.0000e-005	2.4767
Total	**1.1100e-003**	**0.0190**	**0.0136**	**1.1000e-004**	**5.9900e-003**	**1.5000e-004**	**6.1300e-003**	**1.6100e-003**	**1.5000e-004**	**1.7500e-003**	**0.0000**	**10.4201**	**10.4201**	**5.2000e-004**	**1.3300e-003**	**10.8275**

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	0.0192	0.1802	0.3061	4.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	42.0404	42.0404	0.0136	0.0000	42.3803
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0192**	**0.1802**	**0.3061**	**4.8000e-004**		**8.7900e-003**	**8.7900e-003**		**8.0900e-003**	**8.0900e-003**	**0.0000**	**42.0404**	**42.0404**	**0.0136**	**0.0000**	**42.3803**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-004	0.0184	5.2000e-003	8.0000e-005	2.5300e-003	1.3000e-004	2.6600e-003	6.9000e-004	1.3000e-004	8.2000e-004	0.0000	7.9617	7.9617	4.7000e-004	1.2700e-003	8.3508
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.5000e-004	8.3800e-003	3.0000e-005	3.4600e-003	2.0000e-005	3.4700e-003	9.2000e-004	2.0000e-005	9.3000e-004	0.0000	2.4584	2.4584	5.0000e-005	6.0000e-005	2.4767
Total	**1.1100e-003**	**0.0190**	**0.0136**	**1.1000e-004**	**5.9900e-003**	**1.5000e-004**	**6.1300e-003**	**1.6100e-003**	**1.5000e-004**	**1.7500e-003**	**0.0000**	**10.4201**	**10.4201**	**5.2000e-004**	**1.3300e-003**	**10.8275**

3.6 Architectural Coating - 2026

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					
Archit. Coating	0.6257					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.7600e-003	0.0252	0.0398	7.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	5.6172	5.6172	3.1000e-004	0.0000	5.6248

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

Total	**0.6295**	**0.0252**	**0.0398**	**7.0000e-005**		**1.1300e-003**	**1.1300e-003**		**1.1300e-003**	**1.1300e-003**	**0.0000**	**5.6172**	**5.6172**	**3.1000e-004**	**0.0000**	**5.6248**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1500e-003	5.5300e-003	0.0843	2.7000e-004	0.0348	1.7000e-004	0.0349	9.2300e-003	1.6000e-004	9.3900e-003	0.0000	24.7245	24.7245	5.2000e-004	5.7000e-004	24.9086
Total	**8.1500e-003**	**5.5300e-003**	**0.0843**	**2.7000e-004**	**0.0348**	**1.7000e-004**	**0.0349**	**9.2300e-003**	**1.6000e-004**	**9.3900e-003**	**0.0000**	**24.7245**	**24.7245**	**5.2000e-004**	**5.7000e-004**	**24.9086**

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					
Archit. Coating	0.6257					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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

Off-Road	3.7600e-003	0.0252	0.0398	7.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	5.6172	5.6172	3.1000e-004	0.0000	5.6248
Total	**0.6295**	**0.0252**	**0.0398**	**7.0000e-005**		**1.1300e-003**	**1.1300e-003**		**1.1300e-003**	**1.1300e-003**	**0.0000**	**5.6172**	**5.6172**	**3.1000e-004**	**0.0000**	**5.6248**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1500e-003	5.5300e-003	0.0843	2.7000e-004	0.0348	1.7000e-004	0.0349	9.2300e-003	1.6000e-004	9.3900e-003	0.0000	24.7245	24.7245	5.2000e-004	5.7000e-004	24.9086
Total	**8.1500e-003**	**5.5300e-003**	**0.0843**	**2.7000e-004**	**0.0348**	**1.7000e-004**	**0.0349**	**9.2300e-003**	**1.6000e-004**	**9.3900e-003**	**0.0000**	**24.7245**	**24.7245**	**5.2000e-004**	**5.7000e-004**	**24.9086**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

New Parkside Housing Village - South Coast AQMD Air District, 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	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.4855	2.9260	25.5227	0.0585	6.6531	0.0421	6.6953	1.7756	0.0392	1.8148	0.0000	5,412.4039	5,412.4039	0.3467	0.2385	5,492.1326
Unmitigated	2.4855	2.9260	25.5227	0.0585	6.6531	0.0421	6.6953	1.7756	0.0392	1.8148	0.0000	5,412.4039	5,412.4039	0.3467	0.2385	5,492.1326

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5,440.00	4,910.00	4090.00	17,671,557	17,671,557
Total	5,440.00	4,910.00	4,090.00	17,671,557	17,671,557

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540893	0.062748	0.186142	0.127785	0.023768	0.006610	0.012333	0.009205	0.000817	0.000491	0.024860	0.000754	0.0035

5.0 Energy Detail

New Parkside Housing Village - South Coast AQMD Air District, Annual

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	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	682.6651	682.6651	0.0576	6.9800e-003	686.1868
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	682.6651	682.6651	0.0576	6.9800e-003	686.1868
NaturalGas Mitigated	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.2830	697.2830	0.0134	0.0128	701.4266
NaturalGas Unmitigated	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.2830	697.2830	0.0134	0.0128	701.4266

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					
Apartments Mid Rise	1.30666e+007	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.2830	697.2830	0.0134	0.0128	701.4266

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

Total		**0.0705**	**0.6021**	**0.2562**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.2830**	**697.2830**	**0.0134**	**0.0128**	**701.4266**

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					
Apartments Mid Rise	1.30666e+007	0.0705	0.6021	0.2562	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	697.2830	697.2830	0.0134	0.0128	701.4266
Total		**0.0705**	**0.6021**	**0.2562**	**3.8400e-003**		**0.0487**	**0.0487**		**0.0487**	**0.0487**	**0.0000**	**697.2830**	**697.2830**	**0.0134**	**0.0128**	**701.4266**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.84935e+006	682.6651	0.0576	6.9800e-003	686.1868
Total		**682.6651**	**0.0576**	**6.9800e-003**	**686.1868**

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3.84935e+006	682.6651	0.0576	6.9800e-003	686.1868
Total		**682.6651**	**0.0576**	**6.9800e-003**	**686.1868**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3701	0.3780	16.6598	0.0168		1.0120	1.0120		1.0120	1.0120	106.2191	220.9621	327.1812	0.3329	7.2100e-003	337.6520
Unmitigated	4.3701	0.3780	16.6598	0.0168		1.0120	1.0120		1.0120	1.0120	106.2191	220.9621	327.1812	0.3329	7.2100e-003	337.6520

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						tons/yr								MT/yr		
Architectural Coating	0.0626					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2755	0.2594	6.3569	0.0162		0.9549	0.9549		0.9549	0.9549	106.2191	204.1166	310.3356	0.3168	7.2100e-003	320.4032
Landscaping	0.3093	0.1187	10.3029	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8456	16.8456	0.0161	0.0000	17.2488
Total	**4.3701**	**0.3780**	**16.6598**	**0.0168**		**1.0120**	**1.0120**		**1.0120**	**1.0120**	**106.2191**	**220.9621**	**327.1812**	**0.3329**	**7.2100e-003**	**337.6520**

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	0.0626					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7227					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Hearth	3.2755	0.2594	6.3569	0.0162		0.9549	0.9549		0.9549	0.9549	106.2191	204.1166	310.3356	0.3168	7.2100e-003	320.4032
Landscaping	0.3093	0.1187	10.3029	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8456	16.8456	0.0161	0.0000	17.2488
Total	**4.3701**	**0.3780**	**16.6598**	**0.0168**		**1.0120**	**1.0120**		**1.0120**	**1.0120**	**106.2191**	**220.9621**	**327.1812**	**0.3329**	**7.2100e-003**	**337.6520**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	252.0563	2.1426	0.0525	321.2647
Unmitigated	252.0563	2.1426	0.0525	321.2647

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

Land Use	Mgal	MT/yr			
Apartments Mid Rise	65.154 / 41.0754	252.0563	2.1426	0.0525	321.2647
Total		**252.0563**	**2.1426**	**0.0525**	**321.2647**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	65.154 / 41.0754	252.0563	2.1426	0.0525	321.2647
Total		**252.0563**	**2.1426**	**0.0525**	**321.2647**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

	MT/yr			
Mitigated	93.3758	5.5184	0.0000	231.3347
Unmitigated	93.3758	5.5184	0.0000	231.3347

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	460	93.3758	5.5184	0.0000	231.3347
Total		**93.3758**	**5.5184**	**0.0000**	**231.3347**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	460	93.3758	5.5184	0.0000	231.3347

New Parkside Housing Village - South Coast AQMD Air District, Annual

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

Total		**93.3758**	**5.5184**	**0.0000**	**231.3347**

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

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

New Parkside Housing Village

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,000.00	Dwelling Unit	26.32	200,000.00	1000

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2026
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 -

Land Use - per info provided by CSULB; 1000 beds = 1000 residents

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	44.00
tblConstructionPhase	NumDays	440.00	348.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	35.00	42.00
tblLandUse	LandUseSquareFeet	1,000,000.00	200,000.00
tblLandUse	Population	2,860.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	452.00	516.00
tblTripsAndVMT	HaulingTripNumber	0.00	616.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,436.00
tblTripsAndVMT	HaulingTripNumber	0.00	294.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.7475	34.0718	41.4333	0.1185	9.6666	1.3491	11.0157	3.7787	1.2416	5.0203	0.0000	11,973.6703	11,973.6703	1.9961	0.5202	12,150.0823
2025	3.5039	18.4326	39.7216	0.1157	8.8555	0.5978	9.4533	2.3652	0.5620	2.9272	0.0000	11,693.1512	11,693.1512	0.8376	0.5040	11,864.2840
2026	28.9911	9.4367	15.2526	0.0279	1.6096	0.4257	1.6689	0.4269	0.3919	0.4856	0.0000	2,759.3741	2,759.3741	0.7412	0.0692	2,798.5292
Maximum	**28.9911**	**34.0718**	**41.4333**	**0.1185**	**9.6666**	**1.3491**	**11.0157**	**3.7787**	**1.2416**	**5.0203**	**0.0000**	**11,973.6703**	**11,973.6703**	**1.9961**	**0.5202**	**12,150.0823**

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					
2024	3.7475	34.0718	41.4333	0.1185	8.8555	1.3491	9.5411	2.3652	1.2416	3.0097	0.0000	11,973.6703	11,973.6703	1.9961	0.5202	12,150.0823
2025	3.5039	18.4326	39.7216	0.1157	8.8555	0.5978	9.4533	2.3652	0.5620	2.9272	0.0000	11,693.1512	11,693.1512	0.8376	0.5040	11,864.2840
2026	28.9911	9.4367	15.2526	0.0279	1.6096	0.4257	1.6689	0.4269	0.3919	0.4856	0.0000	2,759.3741	2,759.3741	0.7412	0.0692	2,798.5292
Maximum	**28.9911**	**34.0718**	**41.4333**	**0.1185**	**8.8555**	**1.3491**	**9.5411**	**2.3652**	**1.2416**	**3.0097**	**0.0000**	**11,973.6703**	**11,973.6703**	**1.9961**	**0.5202**	**12,150.0823**

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	4.03	0.00	6.66	21.51	0.00	23.84	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.918 4	18,148.55 23	27,515.47 07	28.0762	0.6358	28,406.83 26
Energy	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
Mobile	15.1162	15.5528	150.7895	0.3506	39.1709	0.2437	39.4146	10.4387	0.2267	10.6654		35,758.46 21	35,758.46 21	2.1615	1.4556	36,246.27 54
Total	**284.3158**	**40.5497**	**743.1683**	**1.6734**	**39.1709**	**77.3561**	**116.5270**	**10.4387**	**77.3391**	**87.7778**	**9,366.918 4**	**58,118.64 69**	**67,485.56 53**	**30.3185**	**2.1686**	**68,889.76 82**

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	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.918 4	18,148.55 23	27,515.47 07	28.0762	0.6358	28,406.83 26
Energy	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
Mobile	15.1162	15.5528	150.7895	0.3506	39.1709	0.2437	39.4146	10.4387	0.2267	10.6654		35,758.46 21	35,758.46 21	2.1615	1.4556	36,246.27 54
Total	**284.3158**	**40.5497**	**743.1683**	**1.6734**	**39.1709**	**77.3561**	**116.5270**	**10.4387**	**77.3391**	**87.7778**	**9,366.918 4**	**58,118.64 69**	**67,485.56 53**	**30.3185**	**2.1686**	**68,889.76 82**

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	5/1/2024	6/30/2024	5	43	
2	Grading	Grading	7/1/2024	8/30/2024	5	45	
3	Building Construction	Building Construction	8/31/2024	12/31/2025	5	348	
4	Paving	Paving	1/1/2026	2/27/2026	5	42	
5	Architectural Coating	Architectural Coating	2/28/2026	4/30/2026	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	516.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	616.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	720.00	107.00	2,436.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	294.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	144.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					2.2756	0.0000	2.2756	0.3446	0.0000	0.3446			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922		3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**2.2756**	**0.9602**	**3.2358**	**0.3446**	**0.8922**	**1.2367**		**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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	0.0257	1.4522	0.4132	6.7500e-003	0.2099	0.0110	0.2209	0.0575	0.0105	0.0680		743.7263	743.7263	0.0421	0.1182	779.9999
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	0.0447	0.0287	0.4900	1.4300e-003	0.1677	9.0000e-004	0.1686	0.0445	8.3000e-004	0.0453		144.0995	144.0995	3.2600e-003	3.1600e-003	145.1216
Total	**0.0704**	**1.4809**	**0.9032**	**8.1800e-003**	**0.3776**	**0.0119**	**0.3894**	**0.1020**	**0.0113**	**0.1133**		**887.8258**	**887.8258**	**0.0454**	**0.1214**	**925.1215**

3.2 Demolition - 2024

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					0.8431	0.0000	0.8431	0.1277	0.0000	0.1277			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922	0.0000	3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**0.8431**	**0.9602**	**1.8033**	**0.1277**	**0.8922**	**1.0199**	**0.0000**	**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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	0.0257	1.4522	0.4132	6.7500e-003	0.2099	0.0110	0.2209	0.0575	0.0105	0.0680		743.7263	743.7263	0.0421	0.1182	779.9999
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	0.0447	0.0287	0.4900	1.4300e-003	0.1677	9.0000e-004	0.1686	0.0445	8.3000e-004	0.0453		144.0995	144.0995	3.2600e-003	3.1600e-003	145.1216
Total	**0.0704**	**1.4809**	**0.9032**	**8.1800e-003**	**0.3776**	**0.0119**	**0.3894**	**0.1020**	**0.0113**	**0.1133**		**887.8258**	**887.8258**	**0.0454**	**0.1214**	**925.1215**

3.3 Grading - 2024

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.748 7**	**6,009.748 7**	**1.9437**		**6,058.340 5**

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	0.0293	1.6566	0.4714	7.7000e-003	0.2394	0.0125	0.2519	0.0656	0.0120	0.0776		848.3989	848.3989	0.0480	0.1348	889.7777
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	0.0596	0.0383	0.6534	1.9000e-003	0.2236	1.2000e-003	0.2248	0.0593	1.1100e-003	0.0604		192.1326	192.1326	4.3500e-003	4.2100e-003	193.4955
Total	**0.0889**	**1.6948**	**1.1247**	**9.6000e-003**	**0.4630**	**0.0137**	**0.4767**	**0.1249**	**0.0131**	**0.1380**		**1,040.531 5**	**1,040.531 5**	**0.0524**	**0.1390**	**1,083.273 1**

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4099	0.0000	3.4099	1.3537	0.0000	1.3537			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.748 7	6,009.748 7	1.9437		6,058.340 5
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.4099**	**1.3354**	**4.7453**	**1.3537**	**1.2286**	**2.5823**	**0.0000**	**6,009.748 7**	**6,009.748 7**	**1.9437**		**6,058.340 5**

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	0.0293	1.6566	0.4714	7.7000e-003	0.2394	0.0125	0.2519	0.0656	0.0120	0.0776		848.3989	848.3989	0.0480	0.1348	889.7777
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	0.0596	0.0383	0.6534	1.9000e-003	0.2236	1.2000e-003	0.2248	0.0593	1.1100e-003	0.0604		192.1326	192.1326	4.3500e-003	4.2100e-003	193.4955
Total	**0.0889**	**1.6948**	**1.1247**	**9.6000e-003**	**0.4630**	**0.0137**	**0.4767**	**0.1249**	**0.0131**	**0.1380**		**1,040.531 5**	**1,040.531 5**	**0.0524**	**0.1390**	**1,083.273 1**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0150	0.8471	0.2410	3.9400e-003	0.1224	6.4000e-003	0.1288	0.0336	6.1200e-003	0.0397		433.8404	433.8404	0.0246	0.0690	454.9999
Vendor	0.1155	3.9018	1.5040	0.0192	0.6851	0.0227	0.7078	0.1973	0.0217	0.2190		2,067.3560	2,067.3560	0.0705	0.2997	2,158.4382
Worker	2.1454	1.3781	23.5214	0.0684	8.0479	0.0432	8.0911	2.1343	0.0398	2.1741		6,916.7750	6,916.7750	0.1565	0.1515	6,965.8365
Total	**2.2759**	**6.1269**	**25.2665**	**0.0916**	**8.8555**	**0.0723**	**8.9278**	**2.3652**	**0.0676**	**2.4328**		**9,417.9714**	**9,417.9714**	**0.2515**	**0.5202**	**9,579.2746**

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.698 9	2,555.698 9	0.6044		2,570.807 7
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.698 9**	**2,555.698 9**	**0.6044**		**2,570.807 7**

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	0.0150	0.8471	0.2410	3.9400e-003	0.1224	6.4000e-003	0.1288	0.0336	6.1200e-003	0.0397		433.8404	433.8404	0.0246	0.0690	454.9999
Vendor	0.1155	3.9018	1.5040	0.0192	0.6851	0.0227	0.7078	0.1973	0.0217	0.2190		2,067.356 0	2,067.356 0	0.0705	0.2997	2,158.438 2
Worker	2.1454	1.3781	23.5214	0.0684	8.0479	0.0432	8.0911	2.1343	0.0398	2.1741		6,916.775 0	6,916.775 0	0.1565	0.1515	6,965.836 5
Total	**2.2759**	**6.1269**	**25.2665**	**0.0916**	**8.8555**	**0.0723**	**8.9278**	**2.3652**	**0.0676**	**2.4328**		**9,417.971 4**	**9,417.971 4**	**0.2515**	**0.5202**	**9,579.274 6**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.474 4**	**2,556.474 4**	**0.6010**		**2,571.498 1**

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	0.0149	0.8408	0.2438	3.8600e-003	0.1224	6.4000e-003	0.1288	0.0336	6.1300e-003	0.0397		425.9720	425.9720	0.0247	0.0677	446.7701
Vendor	0.1130	3.8833	1.4814	0.0188	0.6851	0.0228	0.7079	0.1973	0.0218	0.2190		2,029.675 0	2,029.675 0	0.0707	0.2946	2,119.235 4
Worker	2.0087	1.2388	21.9118	0.0661	8.0479	0.0411	8.0890	2.1343	0.0379	2.1722		6,681.029 8	6,681.029 8	0.1412	0.1417	6,726.780 5
Total	**2.1365**	**5.9629**	**23.6369**	**0.0888**	**8.8555**	**0.0703**	**8.9258**	**2.3652**	**0.0658**	**2.4309**		**9,136.676 8**	**9,136.676 8**	**0.2366**	**0.5040**	**9,292.785 9**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0149	0.8408	0.2438	3.8600e-003	0.1224	6.4000e-003	0.1288	0.0336	6.1300e-003	0.0397		425.9720	425.9720	0.0247	0.0677	446.7701
Vendor	0.1130	3.8833	1.4814	0.0188	0.6851	0.0228	0.7079	0.1973	0.0218	0.2190		2,029.6750	2,029.6750	0.0707	0.2946	2,119.2354
Worker	2.0087	1.2388	21.9118	0.0661	8.0479	0.0411	8.0890	2.1343	0.0379	2.1722		6,681.0298	6,681.0298	0.1412	0.1417	6,726.7805
Total	**2.1365**	**5.9629**	**23.6369**	**0.0888**	**8.8555**	**0.0703**	**8.9258**	**2.3652**	**0.0658**	**2.4309**		**9,136.6768**	**9,136.6768**	**0.2366**	**0.5040**	**9,292.7859**

3.5 Paving - 2026

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0147	0.8316	0.2460	3.7800e-003	0.1224	6.3700e-003	0.1288	0.0336	6.0900e-003	0.0397		417.7146	417.7146	0.0248	0.0664	438.1307
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	0.0394	0.0234	0.4286	1.3300e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		134.9143	134.9143	2.6700e-003	2.7800e-003	135.8108
Total	**0.0541**	**0.8551**	**0.6747**	**5.1100e-003**	**0.2901**	**7.1800e-003**	**0.2973**	**0.0780**	**6.8400e-003**	**0.0849**		**552.6289**	**552.6289**	**0.0275**	**0.0692**	**573.9414**

3.5 Paving - 2026

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0147	0.8316	0.2460	3.7800e-003	0.1224	6.3700e-003	0.1288	0.0336	6.0900e-003	0.0397		417.7146	417.7146	0.0248	0.0664	438.1307
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	0.0394	0.0234	0.4286	1.3300e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		134.9143	134.9143	2.6700e-003	2.7800e-003	135.8108
Total	**0.0541**	**0.8551**	**0.6747**	**5.1100e-003**	**0.2901**	**7.1800e-003**	**0.2973**	**0.0780**	**6.8400e-003**	**0.0849**		**552.6289**	**552.6289**	**0.0275**	**0.0692**	**573.9414**

3.6 Architectural Coating - 2026

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					
Archit. Coating	28.4421					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**28.6129**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.3782	0.2250	4.1148	0.0128	1.6096	7.8000e-003	1.6174	0.4269	7.1800e-003	0.4341		1,295.1772	1,295.1772	0.0257	0.0267	1,303.7835
Total	**0.3782**	**0.2250**	**4.1148**	**0.0128**	**1.6096**	**7.8000e-003**	**1.6174**	**0.4269**	**7.1800e-003**	**0.4341**		**1,295.1772**	**1,295.1772**	**0.0257**	**0.0267**	**1,303.7835**

3.6 Architectural Coating - 2026

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					
Archit. Coating	28.4421					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**28.6129**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.3782	0.2250	4.1148	0.0128	1.6096	7.8000e-003	1.6174	0.4269	7.1800e-003	0.4341		1,295.1772	1,295.1772	0.0257	0.0267	1,303.7835
Total	**0.3782**	**0.2250**	**4.1148**	**0.0128**	**1.6096**	**7.8000e-003**	**1.6174**	**0.4269**	**7.1800e-003**	**0.4341**		**1,295.1772**	**1,295.1772**	**0.0257**	**0.0267**	**1,303.7835**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.1162	15.5528	150.7895	0.3506	39.1709	0.2437	39.4146	10.4387	0.2267	10.6654		35,758.4621	35,758.4621	2.1615	1.4556	36,246.2754
Unmitigated	15.1162	15.5528	150.7895	0.3506	39.1709	0.2437	39.4146	10.4387	0.2267	10.6654		35,758.4621	35,758.4621	2.1615	1.4556	36,246.2754

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5,440.00	4,910.00	4090.00	17,671,557	17,671,557
Total	5,440.00	4,910.00	4,090.00	17,671,557	17,671,557

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540893	0.062748	0.186142	0.127785	0.023768	0.006610	0.012333	0.009205	0.000817	0.000491	0.024860	0.000754	0.003594

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
NaturalGas Unmitigated	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2

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					
Apartments Mid Rise	35798.9	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
Total		**0.3861**	**3.2991**	**1.4039**	**0.0211**		**0.2667**	**0.2667**		**0.2667**	**0.2667**		**4,211.632 6**	**4,211.632 6**	**0.0807**	**0.0772**	**4,236.660 2**

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					
Apartments Mid Rise	35.7989	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.6326	4,211.6326	0.0807	0.0772	4,236.6602
Total		**0.3861**	**3.2991**	**1.4039**	**0.0211**		**0.2667**	**0.2667**		**0.2667**	**0.2667**		**4,211.6326**	**4,211.6326**	**0.0807**	**0.0772**	**4,236.6602**

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	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326
Unmitigated	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326

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	0.3429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	262.0360	20.7483	508.5518	1.2974		76.3883	76.3883		76.3883	76.3883	9,366.9184	18,000.0000	27,366.9184	27.9340	0.6358	28,254.7239
Landscaping	2.4747	0.9494	82.4231	4.3600e-003		0.4573	0.4573		0.4573	0.4573		148.5523	148.5523	0.1423		152.1087
Total	**268.8136**	**21.6977**	**590.9749**	**1.3017**		**76.8457**	**76.8457**		**76.8457**	**76.8457**	**9,366.9184**	**18,148.5523**	**27,515.4707**	**28.0762**	**0.6358**	**28,406.8326**

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	0.3429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	262.0360	20.7483	508.5518	1.2974		76.3883	76.3883		76.3883	76.3883	9,366.9184	18,000.0000	27,366.9184	27.9340	0.6358	28,254.7239
Landscaping	2.4747	0.9494	82.4231	4.3600e-003		0.4573	0.4573		0.4573	0.4573		148.5523	148.5523	0.1423		152.1087
Total	**268.8136**	**21.6977**	**590.9749**	**1.3017**		**76.8457**	**76.8457**		**76.8457**	**76.8457**	**9,366.9184**	**18,148.5523**	**27,515.4707**	**28.0762**	**0.6358**	**28,406.8326**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

New Parkside Housing Village

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1,000.00	Dwelling Unit	26.32	200,000.00	1000

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2026

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 -

Land Use - per info provided by CSULB; 1000 beds = 1000 residents

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	44.00
tblConstructionPhase	NumDays	440.00	348.00
tblConstructionPhase	NumDays	30.00	43.00
tblConstructionPhase	NumDays	35.00	42.00
tblLandUse	LandUseSquareFeet	1,000,000.00	200,000.00
tblLandUse	Population	2,860.00	1,000.00
tblTripsAndVMT	HaulingTripNumber	452.00	516.00
tblTripsAndVMT	HaulingTripNumber	0.00	616.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,436.00
tblTripsAndVMT	HaulingTripNumber	0.00	294.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	3.8675	34.1544	39.2598	0.1146	9.6666	1.3491	11.0157	3.7787	1.2417	5.0203	0.0000	11,576.8408	11,576.8408	1.9960	0.5302	11,756.2829
2025	3.6223	18.7807	37.7133	0.1120	8.8555	0.5980	9.4534	2.3652	0.5621	2.9273	0.0000	11,310.4982	11,310.4982	0.8395	0.5134	11,484.4644
2026	29.0158	9.4787	15.2159	0.0279	1.6096	0.4257	1.6689	0.4269	0.3919	0.4856	0.0000	2,752.0526	2,752.0526	0.7412	0.0695	2,791.2804
Maximum	**29.0158**	**34.1544**	**39.2598**	**0.1146**	**9.6666**	**1.3491**	**11.0157**	**3.7787**	**1.2417**	**5.0203**	**0.0000**	**11,576.8408**	**11,576.8408**	**1.9960**	**0.5302**	**11,756.2829**

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					
2024	3.8675	34.1544	39.2598	0.1146	8.8555	1.3491	9.5412	2.3652	1.2417	3.0098	0.0000	11,576.8408	11,576.8408	1.9960	0.5302	11,756.2829
2025	3.6223	18.7807	37.7133	0.1120	8.8555	0.5980	9.4534	2.3652	0.5621	2.9273	0.0000	11,310.4982	11,310.4982	0.8395	0.5134	11,484.4644
2026	29.0158	9.4787	15.2159	0.0279	1.6096	0.4257	1.6689	0.4269	0.3919	0.4856	0.0000	2,752.0526	2,752.0526	0.7412	0.0695	2,791.2804
Maximum	**29.0158**	**34.1544**	**39.2598**	**0.1146**	**8.8555**	**1.3491**	**9.5412**	**2.3652**	**1.2417**	**3.0098**	**0.0000**	**11,576.8408**	**11,576.8408**	**1.9960**	**0.5302**	**11,756.2829**

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	4.03	0.00	6.66	21.51	0.00	23.84	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326
Energy	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.6326	4,211.6326	0.0807	0.0772	4,236.6602
Mobile	14.5658	16.7048	145.9395	0.3345	39.1709	0.2438	39.4147	10.4387	0.2268	10.6655		34,120.4002	34,120.4002	2.2192	1.5105	34,626.0189
Total	**283.7655**	**41.7017**	**738.3183**	**1.6572**	**39.1709**	**77.3562**	**116.5271**	**10.4387**	**77.3392**	**87.7779**	**9,366.9184**	**56,480.5851**	**65,847.5035**	**30.3761**	**2.2235**	**67,269.5117**

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	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326
Energy	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.6326	4,211.6326	0.0807	0.0772	4,236.6602
Mobile	14.5658	16.7048	145.9395	0.3345	39.1709	0.2438	39.4147	10.4387	0.2268	10.6655		34,120.4002	34,120.4002	2.2192	1.5105	34,626.0189
Total	**283.7655**	**41.7017**	**738.3183**	**1.6572**	**39.1709**	**77.3562**	**116.5271**	**10.4387**	**77.3392**	**87.7779**	**9,366.9184**	**56,480.5851**	**65,847.5035**	**30.3761**	**2.2235**	**67,269.5117**

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	5/1/2024	6/30/2024	5	43	
2	Grading	Grading	7/1/2024	8/30/2024	5	45	
3	Building Construction	Building Construction	8/31/2024	12/31/2025	5	348	
4	Paving	Paving	1/1/2026	2/27/2026	5	42	
5	Architectural Coating	Architectural Coating	2/28/2026	4/30/2026	5	44	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 405,000; Residential Outdoor: 135,000; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	516.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	616.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	720.00	107.00	2,436.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	294.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	144.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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					2.2756	0.0000	2.2756	0.3446	0.0000	0.3446			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922		3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**2.2756**	**0.9602**	**3.2358**	**0.3446**	**0.8922**	**1.2367**		**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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	0.0240	1.5215	0.4191	6.7600e-003	0.2099	0.0110	0.2209	0.0575	0.0105	0.0680		744.5730	744.5730	0.0420	0.1183	780.8849
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	0.0473	0.0314	0.4437	1.3400e-003	0.1677	9.0000e-004	0.1686	0.0445	8.3000e-004	0.0453		135.7428	135.7428	3.3100e-003	3.3500e-003	136.8228
Total	**0.0713**	**1.5529**	**0.8627**	**8.1000e-003**	**0.3776**	**0.0119**	**0.3895**	**0.1020**	**0.0113**	**0.1133**		**880.3157**	**880.3157**	**0.0453**	**0.1217**	**917.7077**

3.2 Demolition - 2024

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					0.8431	0.0000	0.8431	0.1277	0.0000	0.1277			0.0000			0.0000
Off-Road	2.2437	20.8781	19.7073	0.0388		0.9602	0.9602		0.8922	0.8922	0.0000	3,747.4228	3,747.4228	1.0485		3,773.6345
Total	**2.2437**	**20.8781**	**19.7073**	**0.0388**	**0.8431**	**0.9602**	**1.8033**	**0.1277**	**0.8922**	**1.0199**	**0.0000**	**3,747.4228**	**3,747.4228**	**1.0485**		**3,773.6345**

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	0.0240	1.5215	0.4191	6.7600e-003	0.2099	0.0110	0.2209	0.0575	0.0105	0.0680		744.5730	744.5730	0.0420	0.1183	780.8849
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	0.0473	0.0314	0.4437	1.3400e-003	0.1677	9.0000e-004	0.1686	0.0445	8.3000e-004	0.0453		135.7428	135.7428	3.3100e-003	3.3500e-003	136.8228
Total	**0.0713**	**1.5529**	**0.8627**	**8.1000e-003**	**0.3776**	**0.0119**	**0.3895**	**0.1020**	**0.0113**	**0.1133**		**880.3157**	**880.3157**	**0.0453**	**0.1217**	**917.7077**

3.3 Grading - 2024

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					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**9.2036**	**1.3354**	**10.5390**	**3.6538**	**1.2286**	**4.8823**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0273	1.7356	0.4781	7.7100e-003	0.2394	0.0125	0.2520	0.0656	0.0120	0.0776		849.3647	849.3647	0.0479	0.1350	890.7872
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	0.0631	0.0419	0.5916	1.7900e-003	0.2236	1.2000e-003	0.2248	0.0593	1.1100e-003	0.0604		180.9903	180.9903	4.4100e-003	4.4600e-003	182.4304
Total	**0.0904**	**1.7775**	**1.0696**	**9.5000e-003**	**0.4630**	**0.0137**	**0.4767**	**0.1249**	**0.0131**	**0.1380**		**1,030.3551**	**1,030.3551**	**0.0523**	**0.1394**	**1,073.2176**

3.3 Grading - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4099	0.0000	3.4099	1.3537	0.0000	1.3537			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.4099**	**1.3354**	**4.7453**	**1.3537**	**1.2286**	**2.5823**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

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	0.0273	1.7356	0.4781	7.7100e-003	0.2394	0.0125	0.2520	0.0656	0.0120	0.0776		849.3647	849.3647	0.0479	0.1350	890.7872
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	0.0631	0.0419	0.5916	1.7900e-003	0.2236	1.2000e-003	0.2248	0.0593	1.1100e-003	0.0604		180.9903	180.9903	4.4100e-003	4.4600e-003	182.4304
Total	**0.0904**	**1.7775**	**1.0696**	**9.5000e-003**	**0.4630**	**0.0137**	**0.4767**	**0.1249**	**0.0131**	**0.1380**		**1,030.3551**	**1,030.3551**	**0.0523**	**0.1394**	**1,073.2176**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0140	0.8875	0.2445	3.9400e-003	0.1224	6.4100e-003	0.1289	0.0336	6.1300e-003	0.0397		434.3342	434.3342	0.0245	0.0690	455.5162
Vendor	0.1103	4.0954	1.5527	0.0192	0.6851	0.0228	0.7079	0.1973	0.0218	0.2191		2,071.1553	2,071.1553	0.0702	0.3005	2,162.4655
Worker	2.2716	1.5065	21.2958	0.0645	8.0479	0.0432	8.0911	2.1343	0.0398	2.1741		6,515.6524	6,515.6524	0.1588	0.1606	6,567.4935
Total	**2.3959**	**6.4894**	**23.0930**	**0.0876**	**8.8555**	**0.0724**	**8.9279**	**2.3652**	**0.0677**	**2.4329**		**9,021.1419**	**9,021.1419**	**0.2534**	**0.5302**	**9,185.4752**

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

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	0.0140	0.8875	0.2445	3.9400e-003	0.1224	6.4100e-003	0.1289	0.0336	6.1300e-003	0.0397		434.3342	434.3342	0.0245	0.0690	455.5162
Vendor	0.1103	4.0954	1.5527	0.0192	0.6851	0.0228	0.7079	0.1973	0.0218	0.2191		2,071.1553	2,071.1553	0.0702	0.3005	2,162.4655
Worker	2.2716	1.5065	21.2958	0.0645	8.0479	0.0432	8.0911	2.1343	0.0398	2.1741		6,515.6524	6,515.6524	0.1588	0.1606	6,567.4935
Total	**2.3959**	**6.4894**	**23.0930**	**0.0876**	**8.8555**	**0.0724**	**8.9279**	**2.3652**	**0.0677**	**2.4329**		**9,021.1419**	**9,021.1419**	**0.2534**	**0.5302**	**9,185.4752**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0138	0.8810	0.2472	3.8700e-003	0.1224	6.4200e-003	0.1289	0.0336	6.1400e-003	0.0397		426.4620	426.4620	0.0247	0.0678	447.2822
Vendor	0.1077	4.0762	1.5294	0.0189	0.6851	0.0229	0.7080	0.1973	0.0219	0.2191		2,033.4613	2,033.4613	0.0704	0.2954	2,123.2439
Worker	2.1333	1.3538	19.8521	0.0623	8.0479	0.0411	8.0890	2.1343	0.0379	2.1722		6,294.1005	6,294.1005	0.1435	0.1502	6,342.4402
Total	**2.2549**	**6.3110**	**21.6287**	**0.0850**	**8.8555**	**0.0704**	**8.9259**	**2.3652**	**0.0659**	**2.4310**		**8,754.0238**	**8,754.0238**	**0.2386**	**0.5134**	**8,912.9663**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0138	0.8810	0.2472	3.8700e-003	0.1224	6.4200e-003	0.1289	0.0336	6.1400e-003	0.0397		426.4620	426.4620	0.0247	0.0678	447.2822
Vendor	0.1077	4.0762	1.5294	0.0189	0.6851	0.0229	0.7080	0.1973	0.0219	0.2191		2,033.4613	2,033.4613	0.0704	0.2954	2,123.2439
Worker	2.1333	1.3538	19.8521	0.0623	8.0479	0.0411	8.0890	2.1343	0.0379	2.1722		6,294.1005	6,294.1005	0.1435	0.1502	6,342.4402
Total	**2.2549**	**6.3110**	**21.6287**	**0.0850**	**8.8555**	**0.0704**	**8.9259**	**2.3652**	**0.0659**	**2.4310**		**8,754.0238**	**8,754.0238**	**0.2386**	**0.5134**	**8,912.9663**

3.5 Paving - 2026

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0137	0.8714	0.2494	3.7900e-003	0.1224	6.3800e-003	0.1288	0.0336	6.1100e-003	0.0397		418.1998	418.1998	0.0248	0.0665	438.6378
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	0.0420	0.0256	0.3885	1.2600e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		127.1076	127.1076	2.7200e-003	2.9500e-003	128.0548
Total	**0.0557**	**0.8971**	**0.6379**	**5.0500e-003**	**0.2901**	**7.1900e-003**	**0.2973**	**0.0780**	**6.8600e-003**	**0.0849**		**545.3075**	**545.3075**	**0.0275**	**0.0695**	**566.6926**

3.5 Paving - 2026

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0137	0.8714	0.2494	3.7900e-003	0.1224	6.3800e-003	0.1288	0.0336	6.1100e-003	0.0397		418.1998	418.1998	0.0248	0.0665	438.6378
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	0.0420	0.0256	0.3885	1.2600e-003	0.1677	8.1000e-004	0.1685	0.0445	7.5000e-004	0.0452		127.1076	127.1076	2.7200e-003	2.9500e-003	128.0548
Total	**0.0557**	**0.8971**	**0.6379**	**5.0500e-003**	**0.2901**	**7.1900e-003**	**0.2973**	**0.0780**	**6.8600e-003**	**0.0849**		**545.3075**	**545.3075**	**0.0275**	**0.0695**	**566.6926**

3.6 Architectural Coating - 2026

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					
Archit. Coating	28.4421					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**28.6129**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.4029	0.2458	3.7298	0.0121	1.6096	7.8000e-003	1.6174	0.4269	7.1800e-003	0.4341		1,220.2330	1,220.2330	0.0261	0.0283	1,229.3258
Total	**0.4029**	**0.2458**	**3.7298**	**0.0121**	**1.6096**	**7.8000e-003**	**1.6174**	**0.4269**	**7.1800e-003**	**0.4341**		**1,220.2330**	**1,220.2330**	**0.0261**	**0.0283**	**1,229.3258**

3.6 Architectural Coating - 2026

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					
Archit. Coating	28.4421					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**28.6129**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.4029	0.2458	3.7298	0.0121	1.6096	7.8000e-003	1.6174	0.4269	7.1800e-003	0.4341		1,220.2330	1,220.2330	0.0261	0.0283	1,229.3258
Total	**0.4029**	**0.2458**	**3.7298**	**0.0121**	**1.6096**	**7.8000e-003**	**1.6174**	**0.4269**	**7.1800e-003**	**0.4341**		**1,220.2330**	**1,220.2330**	**0.0261**	**0.0283**	**1,229.3258**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	14.5658	16.7048	145.9395	0.3345	39.1709	0.2438	39.4147	10.4387	0.2268	10.6655		34,120.4002	34,120.4002	2.2192	1.5105	34,626.0189
Unmitigated	14.5658	16.7048	145.9395	0.3345	39.1709	0.2438	39.4147	10.4387	0.2268	10.6655		34,120.4002	34,120.4002	2.2192	1.5105	34,626.0189

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5,440.00	4,910.00	4090.00	17,671,557	17,671,557
Total	5,440.00	4,910.00	4,090.00	17,671,557	17,671,557

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540893	0.062748	0.186142	0.127785	0.023768	0.006610	0.012333	0.009205	0.000817	0.000491	0.024860	0.000754	0.003594

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
NaturalGas Unmitigated	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2

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					
Apartments Mid Rise	35798.9	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.632 6	4,211.632 6	0.0807	0.0772	4,236.660 2
Total		**0.3861**	**3.2991**	**1.4039**	**0.0211**		**0.2667**	**0.2667**		**0.2667**	**0.2667**		**4,211.632 6**	**4,211.632 6**	**0.0807**	**0.0772**	**4,236.660 2**

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					
Apartments Mid Rise	35.7989	0.3861	3.2991	1.4039	0.0211		0.2667	0.2667		0.2667	0.2667		4,211.6326	4,211.6326	0.0807	0.0772	4,236.6602
Total		**0.3861**	**3.2991**	**1.4039**	**0.0211**		**0.2667**	**0.2667**		**0.2667**	**0.2667**		**4,211.6326**	**4,211.6326**	**0.0807**	**0.0772**	**4,236.6602**

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	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326
Unmitigated	268.8136	21.6977	590.9749	1.3017		76.8457	76.8457		76.8457	76.8457	9,366.9184	18,148.5523	27,515.4707	28.0762	0.6358	28,406.8326

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	0.3429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	262.0360	20.7483	508.5518	1.2974		76.3883	76.3883		76.3883	76.3883	9,366.9184	18,000.0000	27,366.9184	27.9340	0.6358	28,254.7239
Landscaping	2.4747	0.9494	82.4231	4.3600e-003		0.4573	0.4573		0.4573	0.4573		148.5523	148.5523	0.1423		152.1087
Total	**268.8136**	**21.6977**	**590.9749**	**1.3017**		**76.8457**	**76.8457**		**76.8457**	**76.8457**	**9,366.9184**	**18,148.5523**	**27,515.4707**	**28.0762**	**0.6358**	**28,406.8326**

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	0.3429					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.9600					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	262.0360	20.7483	508.5518	1.2974		76.3883	76.3883		76.3883	76.3883	9,366.9184	18,000.0000	27,366.9184	27.9340	0.6358	28,254.7239
Landscaping	2.4747	0.9494	82.4231	4.3600e-003		0.4573	0.4573		0.4573	0.4573		148.5523	148.5523	0.1423		152.1087
Total	**268.8136**	**21.6977**	**590.9749**	**1.3017**		**76.8457**	**76.8457**		**76.8457**	**76.8457**	**9,366.9184**	**18,148.5523**	**27,515.4707**	**28.0762**	**0.6358**	**28,406.8326**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Faculty and Staff Housing

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	285.00	Dwelling Unit	7.50	388,000.00	815

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2027
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	45.00

tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	41.00
tblLandUse	LandUseSquareFeet	285,000.00	388,000.00
tblTripsAndVMT	HaulingTripNumber	203.00	1,161.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,320.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,235.00
tblTripsAndVMT	HaulingTripNumber	0.00	615.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2025	0.1703	1.6078	1.8043	4.8100e-003	0.3250	0.0578	0.3828	0.1182	0.0539	0.1722	0.0000	438.0712	438.0712	0.0716	0.0219	446.3712
2026	0.2552	2.0671	2.9346	7.5300e-003	0.3519	0.0729	0.4248	0.0943	0.0686	0.1629	0.0000	683.6240	683.6240	0.0842	0.0313	695.0638
2027	0.5624	0.2266	0.3459	7.2000e-004	0.0132	9.4100e-003	0.0226	3.5400e-003	8.7100e-003	0.0123	0.0000	65.3470	65.3470	0.0145	2.7200e-003	66.5198
Maximum	**0.5624**	**2.0671**	**2.9346**	**7.5300e-003**	**0.3519**	**0.0729**	**0.4248**	**0.1182**	**0.0686**	**0.1722**	**0.0000**	**683.6240**	**683.6240**	**0.0842**	**0.0313**	**695.0638**

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					
2025	0.1703	1.6078	1.8043	4.8100e-003	0.2130	0.0578	0.2709	0.0687	0.0539	0.1226	0.0000	438.0710	438.0710	0.0716	0.0219	446.3709
2026	0.2552	2.0671	2.9346	7.5300e-003	0.3519	0.0729	0.4248	0.0943	0.0686	0.1629	0.0000	683.6236	683.6236	0.0842	0.0313	695.0634
2027	0.5624	0.2266	0.3459	7.2000e-004	0.0132	9.4100e-003	0.0226	3.5400e-003	8.7100e-003	0.0123	0.0000	65.3469	65.3469	0.0145	2.7200e-003	66.5197
Maximum	**0.5624**	**2.0671**	**2.9346**	**7.5300e-003**	**0.3519**	**0.0729**	**0.4248**	**0.0943**	**0.0686**	**0.1629**	**0.0000**	**683.6236**	**683.6236**	**0.0842**	**0.0313**	**695.0634**

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	16.22	0.00	13.48	22.92	0.00	14.26	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	5-1-2025	7-31-2025	0.7649	0.7649
2	8-1-2025	10-31-2025	0.6139	0.6139
3	11-1-2025	1-31-2026	0.5877	0.5877
4	2-1-2026	4-30-2026	0.5643	0.5643
5	5-1-2026	7-31-2026	0.5790	0.5790
6	8-1-2026	10-31-2026	0.5812	0.5812
7	11-1-2026	1-31-2027	0.5149	0.5149
8	2-1-2027	4-30-2027	0.6606	0.6606
		Highest	0.7649	0.7649

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	2.5451	0.1077	4.7480	4.7800e-003		0.2884	0.2884		0.2884	0.2884	30.2724	62.9742	93.2466	0.0949	2.0500e-003	96.2308
Energy	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	393.2852	393.2852	0.0202	5.6300e-003	395.4698
Mobile	0.6893	0.7979	7.0501	0.0162	1.8962	0.0115	1.9077	0.5061	0.0107	0.5167	0.0000	1,500.8147	1,500.8147	0.0962	0.0661	1,522.9142
Waste						0.0000	0.0000		0.0000	0.0000	26.6121	0.0000	26.6121	1.5727	0.0000	65.9304
Water						0.0000	0.0000		0.0000	0.0000	5.8911	65.9450	71.8360	0.6106	0.0150	91.5604
Total	**3.2545**	**1.0773**	**11.8712**	**0.0221**	**1.8962**	**0.3138**	**2.2100**	**0.5061**	**0.3130**	**0.8190**	**62.7756**	**2,023.0191**	**2,085.7947**	**2.3947**	**0.0887**	**2,172.1057**

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	2.5451	0.1077	4.7480	4.7800e-003		0.2884	0.2884		0.2884	0.2884	30.2724	62.9742	93.2466	0.0949	2.0500e-003	96.2308
Energy	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	393.2852	393.2852	0.0202	5.6300e-003	395.4698
Mobile	0.6893	0.7979	7.0501	0.0162	1.8962	0.0115	1.9077	0.5061	0.0107	0.5167	0.0000	1,500.8147	1,500.8147	0.0962	0.0661	1,522.9142
Waste						0.0000	0.0000		0.0000	0.0000	26.6121	0.0000	26.6121	1.5727	0.0000	65.9304
Water						0.0000	0.0000		0.0000	0.0000	5.8911	65.9450	71.8360	0.6106	0.0150	91.5604
Total	**3.2545**	**1.0773**	**11.8712**	**0.0221**	**1.8962**	**0.3138**	**2.2100**	**0.5061**	**0.3130**	**0.8190**	**62.7756**	**2,023.0191**	**2,085.7947**	**2.3947**	**0.0887**	**2,172.1057**

	ROG	NOx	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	5/1/2025	6/30/2025	5	43	
2	Grading	Grading	7/1/2025	8/29/2025	5	44	
3	Building Construction	Building Construction	8/30/2025	12/31/2026	5	349	

4	Paving	Paving	1/1/2027	2/26/2027	5	41	
5	Architectural Coating	Architectural Coating	2/27/2027	3/26/2027	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 785,700; Residential Outdoor: 261,900; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	6	15.00	0.00	1,161.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,320.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	205.00	30.00	5,235.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	615.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

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					0.0220	0.0000	0.0220	3.3300e-003	0.0000	3.3300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4127	0.4175	8.4000e-004		0.0183	0.0183		0.0170	0.0170	0.0000	73.0950	73.0950	0.0204	0.0000	73.6052
Total	**0.0450**	**0.4127**	**0.4175**	**8.4000e-004**	**0.0220**	**0.0183**	**0.0403**	**3.3300e-003**	**0.0170**	**0.0204**	**0.0000**	**73.0950**	**73.0950**	**0.0204**	**0.0000**	**73.6052**

3.2 Demolition - 2025

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	1.2000e-003	0.0735	0.0203	3.2000e-004	9.9900e-003	5.3000e-004	0.0105	2.7400e-003	5.1000e-004	3.2500e-003	0.0000	32.0620	32.0620	1.8600e-003	5.1000e-003	33.6274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.2000e-004	9.1400e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.5966	2.5966	6.0000e-005	6.0000e-005	2.6165
Total	**2.0800e-003**	**0.0741**	**0.0295**	**3.5000e-004**	**0.0135**	**5.5000e-004**	**0.0141**	**3.6800e-003**	**5.3000e-004**	**4.2100e-003**	**0.0000**	**34.6586**	**34.6586**	**1.9200e-003**	**5.1600e-003**	**36.2439**

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					8.1500e-003	0.0000	8.1500e-003	1.2300e-003	0.0000	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.4127	0.4175	8.4000e-004		0.0183	0.0183		0.0170	0.0170	0.0000	73.0949	73.0949	0.0204	0.0000	73.6051
Total	**0.0450**	**0.4127**	**0.4175**	**8.4000e-004**	**8.1500e-003**	**0.0183**	**0.0265**	**1.2300e-003**	**0.0170**	**0.0183**	**0.0000**	**73.0949**	**73.0949**	**0.0204**	**0.0000**	**73.6051**

3.2 Demolition - 2025

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	1.2000e-003	0.0735	0.0203	3.2000e-004	9.9900e-003	5.3000e-004	0.0105	2.7400e-003	5.1000e-004	3.2500e-003	0.0000	32.0620	32.0620	1.8600e-003	5.1000e-003	33.6274
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.2000e-004	9.1400e-003	3.0000e-005	3.5400e-003	2.0000e-005	3.5600e-003	9.4000e-004	2.0000e-005	9.6000e-004	0.0000	2.5966	2.5966	6.0000e-005	6.0000e-005	2.6165
Total	**2.0800e-003**	**0.0741**	**0.0295**	**3.5000e-004**	**0.0135**	**5.5000e-004**	**0.0141**	**3.6800e-003**	**5.3000e-004**	**4.2100e-003**	**0.0000**	**34.6586**	**34.6586**	**1.9200e-003**	**5.1600e-003**	**36.2439**

3.3 Grading - 2025

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					0.1558	0.0000	0.1558	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0335	0.3369	0.3199	6.5000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	57.3536	57.3536	0.0186	0.0000	57.8173
Total	**0.0335**	**0.3369**	**0.3199**	**6.5000e-004**	**0.1558**	**0.0137**	**0.1695**	**0.0753**	**0.0126**	**0.0880**	**0.0000**	**57.3536**	**57.3536**	**0.0186**	**0.0000**	**57.8173**

3.3 Grading - 2025

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	1.3600e-003	0.0836	0.0231	3.6000e-004	0.0114	6.0000e-004	0.0120	3.1200e-003	5.8000e-004	3.7000e-003	0.0000	36.4529	36.4529	2.1100e-003	5.8000e-003	38.2327
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	9.0000e-004	6.3000e-004	9.3500e-003	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.6570	2.6570	6.0000e-005	6.0000e-005	2.6774
Total	**2.2600e-003**	**0.0842**	**0.0325**	**3.9000e-004**	**0.0150**	**6.2000e-004**	**0.0156**	**4.0800e-003**	**6.0000e-004**	**4.6800e-003**	**0.0000**	**39.1099**	**39.1099**	**2.1700e-003**	**5.8600e-003**	**40.9101**

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					0.0577	0.0000	0.0577	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0335	0.3369	0.3199	6.5000e-004		0.0137	0.0137		0.0126	0.0126	0.0000	57.3535	57.3535	0.0186	0.0000	57.8173
Total	**0.0335**	**0.3369**	**0.3199**	**6.5000e-004**	**0.0577**	**0.0137**	**0.0715**	**0.0279**	**0.0126**	**0.0405**	**0.0000**	**57.3535**	**57.3535**	**0.0186**	**0.0000**	**57.8173**

3.3 Grading - 2025

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	1.3600e-003	0.0836	0.0231	3.6000e-004	0.0114	6.0000e-004	0.0120	3.1200e-003	5.8000e-004	3.7000e-003	0.0000	36.4529	36.4529	2.1100e-003	5.8000e-003	38.2327
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	9.0000e-004	6.3000e-004	9.3500e-003	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.6570	2.6570	6.0000e-005	6.0000e-005	2.6774
Total	**2.2600e-003**	**0.0842**	**0.0325**	**3.9000e-004**	**0.0150**	**6.2000e-004**	**0.0156**	**4.0800e-003**	**6.0000e-004**	**4.6800e-003**	**0.0000**	**39.1099**	**39.1099**	**2.1700e-003**	**5.8600e-003**	**40.9101**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0602	0.5487	0.7077	1.1900e-003		0.0232	0.0232		0.0218	0.0218	0.0000	102.0446	102.0446	0.0240	0.0000	102.6443
Total	**0.0602**	**0.5487**	**0.7077**	**1.1900e-003**		**0.0232**	**0.0232**		**0.0218**	**0.0218**	**0.0000**	**102.0446**	**102.0446**	**0.0240**	**0.0000**	**102.6443**

3.4 Building Construction - 2025

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	1.3600e-003	0.0836	0.0231	3.6000e-004	0.0114	6.0000e-004	0.0120	3.1200e-003	5.8000e-004	3.7000e-003	0.0000	36.4529	36.4529	2.1100e-003	5.8000e-003	38.2327
Vendor	1.3600e-003	0.0503	0.0186	2.3000e-004	8.3200e-003	2.8000e-004	8.6100e-003	2.4000e-003	2.7000e-004	2.6700e-003	0.0000	22.7328	22.7328	7.9000e-004	3.3000e-003	23.7366
Worker	0.0246	0.0173	0.2556	7.9000e-004	0.0990	5.2000e-004	0.0995	0.0263	4.7000e-004	0.0268	0.0000	72.6239	72.6239	1.6300e-003	1.7300e-003	73.1811
Total	**0.0273**	**0.1512**	**0.2972**	**1.3800e-003**	**0.1186**	**1.4000e-003**	**0.1201**	**0.0318**	**1.3200e-003**	**0.0331**	**0.0000**	**131.8096**	**131.8096**	**4.5300e-003**	**0.0108**	**135.1504**

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	0.0602	0.5487	0.7077	1.1900e-003		0.0232	0.0232		0.0218	0.0218	0.0000	102.0444	102.0444	0.0240	0.0000	102.6441
Total	**0.0602**	**0.5487**	**0.7077**	**1.1900e-003**		**0.0232**	**0.0232**		**0.0218**	**0.0218**	**0.0000**	**102.0444**	**102.0444**	**0.0240**	**0.0000**	**102.6441**

3.4 Building Construction - 2025

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	1.3600e-003	0.0836	0.0231	3.6000e-004	0.0114	6.0000e-004	0.0120	3.1200e-003	5.8000e-004	3.7000e-003	0.0000	36.4529	36.4529	2.1100e-003	5.8000e-003	38.2327
Vendor	1.3600e-003	0.0503	0.0186	2.3000e-004	8.3200e-003	2.8000e-004	8.6100e-003	2.4000e-003	2.7000e-004	2.6700e-003	0.0000	22.7328	22.7328	7.9000e-004	3.3000e-003	23.7366
Worker	0.0246	0.0173	0.2556	7.9000e-004	0.0990	5.2000e-004	0.0995	0.0263	4.7000e-004	0.0268	0.0000	72.6239	72.6239	1.6300e-003	1.7300e-003	73.1811
Total	**0.0273**	**0.1512**	**0.2972**	**1.3800e-003**	**0.1186**	**1.4000e-003**	**0.1201**	**0.0318**	**1.3200e-003**	**0.0331**	**0.0000**	**131.8096**	**131.8096**	**4.5300e-003**	**0.0108**	**135.1504**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9900e-003	0.2451	0.0692	1.0600e-003	0.0337	1.7800e-003	0.0355	9.2500e-003	1.7100e-003	0.0110	0.0000	106.0208	106.0208	6.3000e-003	0.0169	111.2025
Vendor	3.9500e-003	0.1481	0.0544	6.8000e-004	0.0247	8.3000e-004	0.0255	7.1200e-003	8.0000e-004	7.9200e-003	0.0000	66.1597	66.1597	2.3500e-003	9.6200e-003	69.0848
Worker	0.0688	0.0467	0.7120	2.2800e-003	0.2935	1.4500e-003	0.2950	0.0780	1.3300e-003	0.0793	0.0000	208.7886	208.7886	4.4000e-003	4.8500e-003	210.3430
Total	**0.0768**	**0.4399**	**0.8356**	**4.0200e-003**	**0.3519**	**4.0600e-003**	**0.3560**	**0.0943**	**3.8400e-003**	**0.0982**	**0.0000**	**380.9691**	**380.9691**	**0.0131**	**0.0313**	**390.6303**

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	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.1784**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.9900e-003	0.2451	0.0692	1.0600e-003	0.0337	1.7800e-003	0.0355	9.2500e-003	1.7100e-003	0.0110	0.0000	106.0208	106.0208	6.3000e-003	0.0169	111.2025
Vendor	3.9500e-003	0.1481	0.0544	6.8000e-004	0.0247	8.3000e-004	0.0255	7.1200e-003	8.0000e-004	7.9200e-003	0.0000	66.1597	66.1597	2.3500e-003	9.6200e-003	69.0848
Worker	0.0688	0.0467	0.7120	2.2800e-003	0.2935	1.4500e-003	0.2950	0.0780	1.3300e-003	0.0793	0.0000	208.7886	208.7886	4.4000e-003	4.8500e-003	210.3430
Total	**0.0768**	**0.4399**	**0.8356**	**4.0200e-003**	**0.3519**	**4.0600e-003**	**0.3560**	**0.0943**	**3.8400e-003**	**0.0982**	**0.0000**	**380.9691**	**380.9691**	**0.0131**	**0.0313**	**390.6303**

3.5 Paving - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0188	0.1759	0.2989	4.7000e-004		8.5800e-003	8.5800e-003		7.8900e-003	7.8900e-003	0.0000	41.0395	41.0395	0.0133	0.0000	41.3713
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0188**	**0.1759**	**0.2989**	**4.7000e-004**		**8.5800e-003**	**8.5800e-003**		**7.8900e-003**	**7.8900e-003**	**0.0000**	**41.0395**	**41.0395**	**0.0133**	**0.0000**	**41.3713**

3.5 Paving - 2027

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	6.2000e-004	0.0381	0.0110	1.6000e-004	5.2900e-003	2.8000e-004	5.5700e-003	1.4500e-003	2.7000e-004	1.7200e-003	0.0000	16.3120	16.3120	9.9000e-004	2.5900e-003	17.1100
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	7.5000e-004	4.9000e-004	7.7300e-003	3.0000e-005	3.3700e-003	2.0000e-005	3.3900e-003	9.0000e-004	1.0000e-005	9.1000e-004	0.0000	2.3324	2.3324	5.0000e-005	5.0000e-005	2.3493
Total	**1.3700e-003**	**0.0386**	**0.0187**	**1.9000e-004**	**8.6600e-003**	**3.0000e-004**	**8.9600e-003**	**2.3500e-003**	**2.8000e-004**	**2.6300e-003**	**0.0000**	**18.6444**	**18.6444**	**1.0400e-003**	**2.6400e-003**	**19.4593**

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	0.0188	0.1759	0.2989	4.7000e-004		8.5800e-003	8.5800e-003		7.8900e-003	7.8900e-003	0.0000	41.0394	41.0394	0.0133	0.0000	41.3713
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0188**	**0.1759**	**0.2989**	**4.7000e-004**		**8.5800e-003**	**8.5800e-003**		**7.8900e-003**	**7.8900e-003**	**0.0000**	**41.0394**	**41.0394**	**0.0133**	**0.0000**	**41.3713**

3.5 Paving - 2027

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	6.2000e-004	0.0381	0.0110	1.6000e-004	5.2900e-003	2.8000e-004	5.5700e-003	1.4500e-003	2.7000e-004	1.7200e-003	0.0000	16.3120	16.3120	9.9000e-004	2.5900e-003	17.1100
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	7.5000e-004	4.9000e-004	7.7300e-003	3.0000e-005	3.3700e-003	2.0000e-005	3.3900e-003	9.0000e-004	1.0000e-005	9.1000e-004	0.0000	2.3324	2.3324	5.0000e-005	5.0000e-005	2.3493
Total	**1.3700e-003**	**0.0386**	**0.0187**	**1.9000e-004**	**8.6600e-003**	**3.0000e-004**	**8.9600e-003**	**2.3500e-003**	**2.8000e-004**	**2.6300e-003**	**0.0000**	**18.6444**	**18.6444**	**1.0400e-003**	**2.6400e-003**	**19.4593**

3.6 Architectural Coating - 2027

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					
Archit. Coating	0.5395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**0.5412**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2027

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-003	6.5000e-004	0.0103	3.0000e-005	4.5000e-003	2.0000e-005	4.5200e-003	1.1900e-003	2.0000e-005	1.2100e-003	0.0000	3.1099	3.1099	6.0000e-005	7.0000e-005	3.1324
Total	**1.0000e-003**	**6.5000e-004**	**0.0103**	**3.0000e-005**	**4.5000e-003**	**2.0000e-005**	**4.5200e-003**	**1.1900e-003**	**2.0000e-005**	**1.2100e-003**	**0.0000**	**3.1099**	**3.1099**	**6.0000e-005**	**7.0000e-005**	**3.1324**

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					
Archit. Coating	0.5395					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**0.5412**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

3.6 Architectural Coating - 2027

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-003	6.5000e-004	0.0103	3.0000e-005	4.5000e-003	2.0000e-005	4.5200e-003	1.1900e-003	2.0000e-005	1.2100e-003	0.0000	3.1099	3.1099	6.0000e-005	7.0000e-005	3.1324
Total	**1.0000e-003**	**6.5000e-004**	**0.0103**	**3.0000e-005**	**4.5000e-003**	**2.0000e-005**	**4.5200e-003**	**1.1900e-003**	**2.0000e-005**	**1.2100e-003**	**0.0000**	**3.1099**	**3.1099**	**6.0000e-005**	**7.0000e-005**	**3.1324**

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	0.6893	0.7979	7.0501	0.0162	1.8962	0.0115	1.9077	0.5061	0.0107	0.5167	0.0000	1,500.8147	1,500.8147	0.0962	0.0661	1,522.9142
Unmitigated	0.6893	0.7979	7.0501	0.0162	1.8962	0.0115	1.9077	0.5061	0.0107	0.5167	0.0000	1,500.8147	1,500.8147	0.0962	0.0661	1,522.9142

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,550.40	1,399.35	1165.65	5,036,394	5,036,394
Total	1,550.40	1,399.35	1,165.65	5,036,394	5,036,394

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

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	194.5596	194.5596	0.0164	1.9900e-003	195.5633
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	194.5596	194.5596	0.0164	1.9900e-003	195.5633
NaturalGas Mitigated	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	198.7257	198.7257	3.8100e-003	3.6400e-003	199.9066
NaturalGas Unmitigated	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	198.7257	198.7257	3.8100e-003	3.6400e-003	199.9066

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					
Apartments Mid Rise	3.72398e +006	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	198.7257	198.7257	3.8100e-003	3.6400e-003	199.9066
Total		**0.0201**	**0.1716**	**0.0730**	**1.1000e-003**		**0.0139**	**0.0139**		**0.0139**	**0.0139**	**0.0000**	**198.7257**	**198.7257**	**3.8100e-003**	**3.6400e-003**	**199.9066**

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					
Apartments Mid Rise	3.72398e +006	0.0201	0.1716	0.0730	1.1000e-003		0.0139	0.0139		0.0139	0.0139	0.0000	198.7257	198.7257	3.8100e-003	3.6400e-003	199.9066
Total		**0.0201**	**0.1716**	**0.0730**	**1.1000e-003**		**0.0139**	**0.0139**		**0.0139**	**0.0139**	**0.0000**	**198.7257**	**198.7257**	**3.8100e-003**	**3.6400e-003**	**199.9066**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.09706e +006	194.5596	0.0164	1.9900e-003	195.5633
Total		**194.5596**	**0.0164**	**1.9900e-003**	**195.5633**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.09706e +006	194.5596	0.0164	1.9900e-003	195.5633
Total		**194.5596**	**0.0164**	**1.9900e-003**	**195.5633**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.5451	0.1077	4.7480	4.7800e-003		0.2884	0.2884		0.2884	0.2884	30.2724	62.9742	93.2466	0.0949	2.0500e-003	96.2308
Unmitigated	2.5451	0.1077	4.7480	4.7800e-003		0.2884	0.2884		0.2884	0.2884	30.2724	62.9742	93.2466	0.0949	2.0500e-003	96.2308

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	0.1214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4020					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.9335	0.0739	1.8117	4.6200e-003		0.2721	0.2721		0.2721	0.2721	30.2724	58.1732	88.4457	0.0903	2.0500e-003	91.3149
Landscaping	0.0882	0.0338	2.9363	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8010	4.8010	4.6000e-003	0.0000	4.9159
Total	**2.5451**	**0.1077**	**4.7480**	**4.7800e-003**		**0.2884**	**0.2884**		**0.2884**	**0.2884**	**30.2724**	**62.9742**	**93.2466**	**0.0949**	**2.0500e-003**	**96.2308**

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	0.1214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.4020					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.9335	0.0739	1.8117	4.6200e-003		0.2721	0.2721		0.2721	0.2721	30.2724	58.1732	88.4457	0.0903	2.0500e-003	91.3149
Landscaping	0.0882	0.0338	2.9363	1.6000e-004		0.0163	0.0163		0.0163	0.0163	0.0000	4.8010	4.8010	4.6000e-003	0.0000	4.9159
Total	**2.5451**	**0.1077**	**4.7480**	**4.7800e-003**		**0.2884**	**0.2884**		**0.2884**	**0.2884**	**30.2724**	**62.9742**	**93.2466**	**0.0949**	**2.0500e-003**	**96.2308**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	71.8360	0.6106	0.0150	91.5604
Unmitigated	71.8360	0.6106	0.0150	91.5604

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.5689 / 11.7065	71.8360	0.6106	0.0150	91.5604
Total		**71.8360**	**0.6106**	**0.0150**	**91.5604**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.5689 / 11.7065	71.8360	0.6106	0.0150	91.5604
Total		**71.8360**	**0.6106**	**0.0150**	**91.5604**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.6121	1.5727	0.0000	65.9304
Unmitigated	26.6121	1.5727	0.0000	65.9304

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	131.1	26.6121	1.5727	0.0000	65.9304
Total		**26.6121**	**1.5727**	**0.0000**	**65.9304**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	131.1	26.6121	1.5727	0.0000	65.9304
Total		**26.6121**	**1.5727**	**0.0000**	**65.9304**

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

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

Faculty and Staff Housing

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	285.00	Dwelling Unit	7.50	388,000.00	815

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2027
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	45.00

tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	41.00
tblLandUse	LandUseSquareFeet	285,000.00	388,000.00
tblTripsAndVMT	HaulingTripNumber	203.00	1,161.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,320.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,235.00
tblTripsAndVMT	HaulingTripNumber	0.00	615.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	2.1917	22.4655	23.2611	0.0593	7.7750	0.8783	8.4269	3.6130	0.8164	4.2138	0.0000	5,940.5769	5,940.5769	1.1448	0.2932	6,038.3045
2026	1.9683	15.6532	22.8801	0.0585	2.7459	0.5587	3.3046	0.7349	0.5256	1.2605	0.0000	5,853.8010	5,853.8010	0.7106	0.2615	5,949.4989
2027	54.2238	10.3653	15.5140	0.0320	0.4583	0.4328	0.8629	0.1215	0.3987	0.5151	0.0000	3,214.5509	3,214.5509	0.7694	0.1421	3,276.1300
Maximum	**54.2238**	**22.4655**	**23.2611**	**0.0593**	**7.7750**	**0.8783**	**8.4269**	**3.6130**	**0.8164**	**4.2138**	**0.0000**	**5,940.5769**	**5,940.5769**	**1.1448**	**0.2932**	**6,038.3045**

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					
2025	2.1917	22.4655	23.2611	0.0593	3.3165	0.8783	3.9684	1.4572	0.8164	2.0579	0.0000	5,940.5769	5,940.5769	1.1448	0.2932	6,038.3045
2026	1.9683	15.6532	22.8801	0.0585	2.7459	0.5587	3.3046	0.7349	0.5256	1.2605	0.0000	5,853.8010	5,853.8010	0.7106	0.2615	5,949.4989
2027	54.2238	10.3653	15.5140	0.0320	0.4583	0.4328	0.8629	0.1215	0.3987	0.5151	0.0000	3,214.5509	3,214.5509	0.7694	0.1421	3,276.1300
Maximum	**54.2238**	**22.4655**	**23.2611**	**0.0593**	**3.3165**	**0.8783**	**3.9684**	**1.4572**	**0.8164**	**2.0579**	**0.0000**	**5,940.5769**	**5,940.5769**	**1.1448**	**0.2932**	**6,038.3045**

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	40.61	0.00	35.40	48.24	0.00	36.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Energy	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Mobile	4.1928	4.2426	41.6091	0.0972	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,914.3526	9,914.3526	0.5999	0.4036	10,049.6367
Total	**88.0359**	**11.3667**	**210.4370**	**0.4742**	**11.1641**	**22.0433**	**33.2074**	**2.9752**	**22.0387**	**25.0139**	**2,669.5717**	**16,287.0052**	**18,956.5770**	**8.6247**	**0.6068**	**19,353.0322**

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	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Energy	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Mobile	4.1928	4.2426	41.6091	0.0972	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,914.3526	9,914.3526	0.5999	0.4036	10,049.6367
Total	**88.0359**	**11.3667**	**210.4370**	**0.4742**	**11.1641**	**22.0433**	**33.2074**	**2.9752**	**22.0387**	**25.0139**	**2,669.5717**	**16,287.0052**	**18,956.5770**	**8.6247**	**0.6068**	**19,353.0322**

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	5/1/2025	6/30/2025	5	43	
2	Grading	Grading	7/1/2025	8/29/2025	5	44	
3	Building Construction	Building Construction	8/30/2025	12/31/2026	5	349	
4	Paving	Paving	1/1/2027	2/26/2027	5	41	
5	Architectural Coating	Architectural Coating	2/27/2027	3/26/2027	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 785,700; Residential Outdoor: 261,900; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

<u>Trips and VMT</u>

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	6	15.00	0.00	1,161.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,320.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	205.00	30.00	5,235.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	615.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

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					1.0228	0.0000	1.0228	0.1549	0.0000	0.1549			0.0000			0.0000
Off-Road	2.0926	19.1966	19.4184	0.0388		0.8528	0.8528		0.7920	0.7920		3,747.5996	3,747.5996	1.0464		3,773.7606
Total	**2.0926**	**19.1966**	**19.4184**	**0.0388**	**1.0228**	**0.8528**	**1.8755**	**0.1549**	**0.7920**	**0.9468**		**3,747.5996**	**3,747.5996**	**1.0464**		**3,773.7606**

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	0.0573	3.2431	0.9402	0.0149	0.4723	0.0247	0.4970	0.1295	0.0236	0.1531		1,643.0349	1,643.0349	0.0954	0.2612	1,723.2560
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	0.0419	0.0258	0.4565	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		139.1881	139.1881	2.9400e-003	2.9500e-003	140.1413
Total	**0.0991**	**3.2690**	**1.3967**	**0.0163**	**0.6399**	**0.0256**	**0.6655**	**0.1739**	**0.0244**	**0.1983**		**1,782.2230**	**1,782.2230**	**0.0983**	**0.2642**	**1,863.3972**

3.2 Demolition - 2025

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					0.3789	0.0000	0.3789	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	2.0926	19.1966	19.4184	0.0388		0.8528	0.8528		0.7920	0.7920	0.0000	3,747.5996	3,747.5996	1.0464		3,773.7606
Total	**2.0926**	**19.1966**	**19.4184**	**0.0388**	**0.3789**	**0.8528**	**1.2317**	**0.0574**	**0.7920**	**0.8493**	**0.0000**	**3,747.5996**	**3,747.5996**	**1.0464**		**3,773.7606**

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	0.0573	3.2431	0.9402	0.0149	0.4723	0.0247	0.4970	0.1295	0.0236	0.1531		1,643.0349	1,643.0349	0.0954	0.2612	1,723.2560
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	0.0419	0.0258	0.4565	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		139.1881	139.1881	2.9400e-003	2.9500e-003	140.1413
Total	**0.0991**	**3.2690**	**1.3967**	**0.0163**	**0.6399**	**0.0256**	**0.6655**	**0.1739**	**0.0244**	**0.1983**		**1,782.2230**	**1,782.2230**	**0.0983**	**0.2642**	**1,863.3972**

3.3 Grading - 2025

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737		2,873.7052	2,873.7052	0.9294		2,896.9405
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**7.0826**	**0.6236**	**7.7062**	**3.4247**	**0.5737**	**3.9984**		**2,873.7052**	**2,873.7052**	**0.9294**		**2,896.9405**

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	0.0636	3.6035	1.0447	0.0166	0.5247	0.0274	0.5522	0.1438	0.0263	0.1701		1,825.5943	1,825.5943	0.1060	0.2902	1,914.7289
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	0.0419	0.0258	0.4565	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		139.1881	139.1881	2.9400e-003	2.9500e-003	140.1413
Total	**0.1055**	**3.6293**	**1.5012**	**0.0179**	**0.6924**	**0.0283**	**0.7207**	**0.1883**	**0.0270**	**0.2153**		**1,964.7824**	**1,964.7824**	**0.1089**	**0.2932**	**2,054.8701**

3.3 Grading - 2025

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737	0.0000	2,873.705 2	2,873.705 2	0.9294		2,896.940 5
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**2.6241**	**0.6236**	**3.2477**	**1.2689**	**0.5737**	**1.8425**	**0.0000**	**2,873.705 2**	**2,873.705 2**	**0.9294**		**2,896.940 5**

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	0.0636	3.6035	1.0447	0.0166	0.5247	0.0274	0.5522	0.1438	0.0263	0.1701		1,825.594 3	1,825.594 3	0.1060	0.2902	1,914.728 9
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	0.0419	0.0258	0.4565	1.3800e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		139.1881	139.1881	2.9400e-003	2.9500e-003	140.1413
Total	**0.1055**	**3.6293**	**1.5012**	**0.0179**	**0.6924**	**0.0283**	**0.7207**	**0.1883**	**0.0270**	**0.2153**		**1,964.782 4**	**1,964.782 4**	**0.1089**	**0.2932**	**2,054.870 1**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0318	1.8018	0.5224	8.2800e-003	0.2624	0.0137	0.2761	0.0719	0.0131	0.0850		912.7971	912.7971	0.0530	0.1451	957.3644
Vendor	0.0317	1.0888	0.4153	5.2800e-003	0.1921	6.3800e-003	0.1985	0.0553	6.1000e-003	0.0614		569.0678	569.0678	0.0198	0.0826	594.1782
Worker	0.5719	0.3527	6.2388	0.0188	2.2914	0.0117	2.3031	0.6077	0.0108	0.6185		1,902.2377	1,902.2377	0.0402	0.0403	1,915.2639
Total	**0.6354**	**3.2432**	**7.1765**	**0.0324**	**2.7459**	**0.0318**	**2.7777**	**0.7349**	**0.0300**	**0.7649**		**3,384.1026**	**3,384.1026**	**0.1130**	**0.2681**	**3,466.8065**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0318	1.8018	0.5224	8.2800e-003	0.2624	0.0137	0.2761	0.0719	0.0131	0.0850		912.7971	912.7971	0.0530	0.1451	957.3644
Vendor	0.0317	1.0888	0.4153	5.2800e-003	0.1921	6.3800e-003	0.1985	0.0553	6.1000e-003	0.0614		569.0678	569.0678	0.0198	0.0826	594.1782
Worker	0.5719	0.3527	6.2388	0.0188	2.2914	0.0117	2.3031	0.6077	0.0108	0.6185		1,902.2377	1,902.2377	0.0402	0.0403	1,915.2639
Total	**0.6354**	**3.2432**	**7.1765**	**0.0324**	**2.7459**	**0.0318**	**2.7777**	**0.7349**	**0.0300**	**0.7649**		**3,384.1026**	**3,384.1026**	**0.1130**	**0.2681**	**3,466.8065**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.474 4**	**2,556.474 4**	**0.6010**		**2,571.498 1**

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	0.0315	1.7821	0.5272	8.1100e-003	0.2624	0.0137	0.2760	0.0719	0.0131	0.0850		895.1028	895.1028	0.0532	0.1423	938.8514
Vendor	0.0310	1.0811	0.4103	5.1700e-003	0.1921	6.3600e-003	0.1985	0.0553	6.0900e-003	0.0614		558.3953	558.3953	0.0199	0.0811	583.0688
Worker	0.5384	0.3203	5.8579	0.0182	2.2914	0.0111	2.3025	0.6077	0.0102	0.6179		1,843.828 6	1,843.828 6	0.0365	0.0381	1,856.080 6
Total	**0.6009**	**3.1835**	**6.7954**	**0.0315**	**2.7459**	**0.0311**	**2.7770**	**0.7349**	**0.0294**	**0.7643**		**3,297.326 7**	**3,297.326 7**	**0.1096**	**0.2615**	**3,378.000 8**

3.4 Building Construction - 2026

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0315	1.7821	0.5272	8.1100e-003	0.2624	0.0137	0.2760	0.0719	0.0131	0.0850		895.1028	895.1028	0.0532	0.1423	938.8514
Vendor	0.0310	1.0811	0.4103	5.1700e-003	0.1921	6.3600e-003	0.1985	0.0553	6.0900e-003	0.0614		558.3953	558.3953	0.0199	0.0811	583.0688
Worker	0.5384	0.3203	5.8579	0.0182	2.2914	0.0111	2.3025	0.6077	0.0102	0.6179		1,843.8286	1,843.8286	0.0365	0.0381	1,856.0806
Total	**0.6009**	**3.1835**	**6.7954**	**0.0315**	**2.7459**	**0.0311**	**2.7770**	**0.7349**	**0.0294**	**0.7643**		**3,297.3267**	**3,297.3267**	**0.1096**	**0.2615**	**3,378.0008**

3.5 Paving - 2027

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.745 2**	**2,206.745 2**	**0.7137**		**2,224.587 8**

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	0.0312	1.7622	0.5311	7.9300e-003	0.2624	0.0136	0.2759	0.0719	0.0130	0.0849		876.6864	876.6864	0.0533	0.1395	919.5738
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	0.0372	0.0214	0.4049	1.3000e-003	0.1677	7.6000e-004	0.1684	0.0445	7.0000e-004	0.0452		131.1194	131.1194	2.4400e-003	2.6400e-003	131.9684
Total	**0.0684**	**1.7837**	**0.9360**	**9.2300e-003**	**0.4300**	**0.0143**	**0.4444**	**0.1164**	**0.0137**	**0.1301**		**1,007.805 8**	**1,007.805 8**	**0.0557**	**0.1421**	**1,051.542 2**

3.5 Paving - 2027

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

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	0.0312	1.7622	0.5311	7.9300e-003	0.2624	0.0136	0.2759	0.0719	0.0130	0.0849		876.6864	876.6864	0.0533	0.1395	919.5738
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	0.0372	0.0214	0.4049	1.3000e-003	0.1677	7.6000e-004	0.1684	0.0445	7.0000e-004	0.0452		131.1194	131.1194	2.4400e-003	2.6400e-003	131.9684
Total	**0.0684**	**1.7837**	**0.9360**	**9.2300e-003**	**0.4300**	**0.0143**	**0.4444**	**0.1164**	**0.0137**	**0.1301**		**1,007.8058**	**1,007.8058**	**0.0557**	**0.1421**	**1,051.5422**

3.6 Architectural Coating - 2027

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					
Archit. Coating	53.9514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**54.1223**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.1016	0.0586	1.1068	3.5500e-003	0.4583	2.0800e-003	0.4604	0.1215	1.9200e-003	0.1235		358.3931	358.3931	6.6700e-003	7.2300e-003	360.7136
Total	**0.1016**	**0.0586**	**1.1068**	**3.5500e-003**	**0.4583**	**2.0800e-003**	**0.4604**	**0.1215**	**1.9200e-003**	**0.1235**		**358.3931**	**358.3931**	**6.6700e-003**	**7.2300e-003**	**360.7136**

3.6 Architectural Coating - 2027

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					
Archit. Coating	53.9514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**54.1223**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.1016	0.0586	1.1068	3.5500e-003	0.4583	2.0800e-003	0.4604	0.1215	1.9200e-003	0.1235		358.3931	358.3931	6.6700e-003	7.2300e-003	360.7136
Total	**0.1016**	**0.0586**	**1.1068**	**3.5500e-003**	**0.4583**	**2.0800e-003**	**0.4604**	**0.1215**	**1.9200e-003**	**0.1235**		**358.3931**	**358.3931**	**6.6700e-003**	**7.2300e-003**	**360.7136**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.1928	4.2426	41.6091	0.0972	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,914.352 6	9,914.352 6	0.5999	0.4036	10,049.63 67
Unmitigated	4.1928	4.2426	41.6091	0.0972	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,914.352 6	9,914.352 6	0.5999	0.4036	10,049.63 67

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,550.40	1,399.35	1165.65	5,036,394	5,036,394
Total	1,550.40	1,399.35	1,165.65	5,036,394	5,036,394

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
NaturalGas Unmitigated	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482

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					
Apartments Mid Rise	10202.7	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Total		**0.1100**	**0.9403**	**0.4001**	**6.0000e-003**		**0.0760**	**0.0760**		**0.0760**	**0.0760**		**1,200.3153**	**1,200.3153**	**0.0230**	**0.0220**	**1,207.4482**

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					
Apartments Mid Rise	10.2027	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Total		**0.1100**	**0.9403**	**0.4001**	**6.0000e-003**		**0.0760**	**0.0760**		**0.0760**	**0.0760**		**1,200.3153**	**1,200.3153**	**0.0230**	**0.0220**	**1,207.4482**

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	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Unmitigated	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473

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	0.6652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.6803	5.9133	144.9373	0.3698		21.7707	21.7707		21.7707	21.7707	2,669.5717	5,130.0000	7,799.5717	7.9612	0.1812	8,052.5963
Landscaping	0.7053	0.2706	23.4906	1.2400e-003		0.1303	0.1303		0.1303	0.1303		42.3374	42.3374	0.0405		43.3510
Total	**83.7331**	**6.1839**	**168.4279**	**0.3710**		**21.9010**	**21.9010**		**21.9010**	**21.9010**	**2,669.5717**	**5,172.3374**	**7,841.9092**	**8.0017**	**0.1812**	**8,095.9473**

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	0.6652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.6803	5.9133	144.9373	0.3698		21.7707	21.7707		21.7707	21.7707	2,669.5717	5,130.0000	7,799.5717	7.9612	0.1812	8,052.5963
Landscaping	0.7053	0.2706	23.4906	1.2400e-003		0.1303	0.1303		0.1303	0.1303		42.3374	42.3374	0.0405		43.3510
Total	**83.7331**	**6.1839**	**168.4279**	**0.3710**		**21.9010**	**21.9010**		**21.9010**	**21.9010**	**2,669.5717**	**5,172.3374**	**7,841.9092**	**8.0017**	**0.1812**	**8,095.9473**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Faculty and Staff Housing

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	285.00	Dwelling Unit	7.50	388,000.00	815

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2027
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	45.00

tblConstructionPhase	NumDays	230.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	20.00	41.00
tblLandUse	LandUseSquareFeet	285,000.00	388,000.00
tblTripsAndVMT	HaulingTripNumber	203.00	1,161.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,320.00
tblTripsAndVMT	HaulingTripNumber	0.00	5,235.00
tblTripsAndVMT	HaulingTripNumber	0.00	615.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2025	2.1904	22.6229	22.6954	0.0583	7.7750	0.8784	8.4269	3.6130	0.8164	4.2138	0.0000	5,832.5211	5,832.5211	1.1446	0.2937	5,931.0957
2026	1.9999	15.8219	22.3525	0.0575	2.7459	0.5587	3.3046	0.7349	0.5257	1.2606	0.0000	5,749.2048	5,749.2048	0.7110	0.2642	5,845.7030
2027	54.2308	10.4518	15.4834	0.0320	0.4583	0.4329	0.8629	0.1215	0.3987	0.5151	0.0000	3,207.9958	3,207.9958	0.7693	0.1424	3,269.6693
Maximum	**54.2308**	**22.6229**	**22.6954**	**0.0583**	**7.7750**	**0.8784**	**8.4269**	**3.6130**	**0.8164**	**4.2138**	**0.0000**	**5,832.5211**	**5,832.5211**	**1.1446**	**0.2937**	**5,931.0957**

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					
2025	2.1904	22.6229	22.6954	0.0583	3.3165	0.8784	3.9684	1.4572	0.8164	2.0579	0.0000	5,832.5211	5,832.5211	1.1446	0.2937	5,931.0957
2026	1.9999	15.8219	22.3525	0.0575	2.7459	0.5587	3.3046	0.7349	0.5257	1.2606	0.0000	5,749.2048	5,749.2048	0.7110	0.2642	5,845.7030
2027	54.2308	10.4518	15.4834	0.0320	0.4583	0.4329	0.8629	0.1215	0.3987	0.5151	0.0000	3,207.9958	3,207.9958	0.7693	0.1424	3,269.6693
Maximum	**54.2308**	**22.6229**	**22.6954**	**0.0583**	**3.3165**	**0.8784**	**3.9684**	**1.4572**	**0.8164**	**2.0579**	**0.0000**	**5,832.5211**	**5,832.5211**	**1.1446**	**0.2937**	**5,931.0957**

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	40.61	0.00	35.40	48.24	0.00	35.99	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Energy	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Mobile	4.0387	4.5566	40.3266	0.0927	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,461.7675	9,461.7675	0.6157	0.4187	9,601.9339
Total	**87.8819**	**11.6807**	**209.1545**	**0.4697**	**11.1641**	**22.0433**	**33.2074**	**2.9752**	**22.0387**	**25.0139**	**2,669.5717**	**15,834.4202**	**18,503.9919**	**8.6405**	**0.6219**	**18,905.3294**

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	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Energy	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Mobile	4.0387	4.5566	40.3266	0.0927	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,461.7675	9,461.7675	0.6157	0.4187	9,601.9339
Total	**87.8819**	**11.6807**	**209.1545**	**0.4697**	**11.1641**	**22.0433**	**33.2074**	**2.9752**	**22.0387**	**25.0139**	**2,669.5717**	**15,834.4202**	**18,503.9919**	**8.6405**	**0.6219**	**18,905.3294**

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	5/1/2025	6/30/2025	5	43	
2	Grading	Grading	7/1/2025	8/29/2025	5	44	
3	Building Construction	Building Construction	8/30/2025	12/31/2026	5	349	
4	Paving	Paving	1/1/2027	2/26/2027	5	41	
5	Architectural Coating	Architectural Coating	2/27/2027	3/26/2027	5	45	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 785,700; Residential Outdoor: 261,900; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	1,161.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	1,320.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	205.00	30.00	5,235.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	615.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	41.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2025

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					1.0228	0.0000	1.0228	0.1549	0.0000	0.1549			0.0000			0.0000
Off-Road	2.0926	19.1966	19.4184	0.0388		0.8528	0.8528		0.7920	0.7920		3,747.5996	3,747.5996	1.0464		3,773.7606
Total	**2.0926**	**19.1966**	**19.4184**	**0.0388**	**1.0228**	**0.8528**	**1.8755**	**0.1549**	**0.7920**	**0.9468**		**3,747.5996**	**3,747.5996**	**1.0464**		**3,773.7606**

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	0.0534	3.3982	0.9534	0.0149	0.4723	0.0247	0.4970	0.1295	0.0237	0.1531		1,644.9249	1,644.9249	0.0952	0.2615	1,725.2315
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	0.0444	0.0282	0.4136	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		131.1271	131.1271	2.9900e-003	3.1300e-003	132.1342
Total	**0.0978**	**3.4264**	**1.3669**	**0.0162**	**0.6399**	**0.0256**	**0.6655**	**0.1739**	**0.0245**	**0.1984**		**1,776.0520**	**1,776.0520**	**0.0981**	**0.2646**	**1,857.3657**

3.2 Demolition - 2025

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					0.3789	0.0000	0.3789	0.0574	0.0000	0.0574			0.0000			0.0000
Off-Road	2.0926	19.1966	19.4184	0.0388		0.8528	0.8528		0.7920	0.7920	0.0000	3,747.5996	3,747.5996	1.0464		3,773.7606
Total	**2.0926**	**19.1966**	**19.4184**	**0.0388**	**0.3789**	**0.8528**	**1.2317**	**0.0574**	**0.7920**	**0.8493**	**0.0000**	**3,747.5996**	**3,747.5996**	**1.0464**		**3,773.7606**

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	0.0534	3.3982	0.9534	0.0149	0.4723	0.0247	0.4970	0.1295	0.0237	0.1531		1,644.9249	1,644.9249	0.0952	0.2615	1,725.2315
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	0.0444	0.0282	0.4136	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		131.1271	131.1271	2.9900e-003	3.1300e-003	132.1342
Total	**0.0978**	**3.4264**	**1.3669**	**0.0162**	**0.6399**	**0.0256**	**0.6655**	**0.1739**	**0.0245**	**0.1984**		**1,776.0520**	**1,776.0520**	**0.0981**	**0.2646**	**1,857.3657**

3.3 Grading - 2025

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737		2,873.705 2	2,873.705 2	0.9294		2,896.940 5
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**7.0826**	**0.6236**	**7.7062**	**3.4247**	**0.5737**	**3.9984**		**2,873.705 2**	**2,873.705 2**	**0.9294**		**2,896.940 5**

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	0.0593	3.7757	1.0593	0.0166	0.5247	0.0275	0.5522	0.1438	0.0263	0.1701		1,827.694 3	1,827.694 3	0.1057	0.2906	1,916.923 9
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	0.0444	0.0282	0.4136	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		131.1271	131.1271	2.9900e-003	3.1300e-003	132.1342
Total	**0.1038**	**3.8039**	**1.4729**	**0.0179**	**0.6924**	**0.0284**	**0.7208**	**0.1883**	**0.0271**	**0.2154**		**1,958.821 4**	**1,958.821 4**	**0.1087**	**0.2937**	**2,049.058 0**

3.3 Grading - 2025

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.5227	15.3148	14.5402	0.0297		0.6236	0.6236		0.5737	0.5737	0.0000	2,873.7052	2,873.7052	0.9294		2,896.9405
Total	**1.5227**	**15.3148**	**14.5402**	**0.0297**	**2.6241**	**0.6236**	**3.2477**	**1.2689**	**0.5737**	**1.8425**	**0.0000**	**2,873.7052**	**2,873.7052**	**0.9294**		**2,896.9405**

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	0.0593	3.7757	1.0593	0.0166	0.5247	0.0275	0.5522	0.1438	0.0263	0.1701		1,827.6943	1,827.6943	0.1057	0.2906	1,916.9239
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	0.0444	0.0282	0.4136	1.3000e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		131.1271	131.1271	2.9900e-003	3.1300e-003	132.1342
Total	**0.1038**	**3.8039**	**1.4729**	**0.0179**	**0.6924**	**0.0284**	**0.7208**	**0.1883**	**0.0271**	**0.2154**		**1,958.8214**	**1,958.8214**	**0.1087**	**0.2937**	**2,049.0580**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0297	1.8879	0.5296	8.2900e-003	0.2624	0.0138	0.2761	0.0719	0.0132	0.0851		913.8472	913.8472	0.0529	0.1453	958.4619
Vendor	0.0302	1.1429	0.4288	5.2900e-003	0.1921	6.4100e-003	0.1985	0.0553	6.1300e-003	0.0614		570.1293	570.1293	0.0197	0.0828	595.3020
Worker	0.6074	0.3855	5.6523	0.0177	2.2914	0.0117	2.3031	0.6077	0.0108	0.6185		1,792.0703	1,792.0703	0.0409	0.0428	1,805.8337
Total	**0.6673**	**3.4162**	**6.6108**	**0.0313**	**2.7459**	**0.0319**	**2.7778**	**0.7349**	**0.0301**	**0.7650**		**3,276.0468**	**3,276.0468**	**0.1135**	**0.2709**	**3,359.5976**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0297	1.8879	0.5296	8.2900e-003	0.2624	0.0138	0.2761	0.0719	0.0132	0.0851		913.8472	913.8472	0.0529	0.1453	958.4619
Vendor	0.0302	1.1429	0.4288	5.2900e-003	0.1921	6.4100e-003	0.1985	0.0553	6.1300e-003	0.0614		570.1293	570.1293	0.0197	0.0828	595.3020
Worker	0.6074	0.3855	5.6523	0.0177	2.2914	0.0117	2.3031	0.6077	0.0108	0.6185		1,792.0703	1,792.0703	0.0409	0.0428	1,805.8337
Total	**0.6673**	**3.4162**	**6.6108**	**0.0313**	**2.7459**	**0.0319**	**2.7778**	**0.7349**	**0.0301**	**0.7650**		**3,276.0468**	**3,276.0468**	**0.1135**	**0.2709**	**3,359.5976**

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

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0293	1.8674	0.5345	8.1200e-003	0.2624	0.0137	0.2760	0.0719	0.0131	0.0850		896.1425	896.1425	0.0531	0.1425	939.9381
Vendor	0.0295	1.1348	0.4236	5.1800e-003	0.1921	6.3900e-003	0.1985	0.0553	6.1100e-003	0.0614		559.4507	559.4507	0.0198	0.0813	584.1850
Worker	0.5736	0.3500	5.3098	0.0172	2.2914	0.0111	2.3025	0.6077	0.0102	0.6179		1,737.1373	1,737.1373	0.0372	0.0403	1,750.0818
Total	**0.6325**	**3.3522**	**6.2679**	**0.0305**	**2.7459**	**0.0312**	**2.7770**	**0.7349**	**0.0294**	**0.7643**		**3,192.7305**	**3,192.7305**	**0.1101**	**0.2642**	**3,274.2049**

3.4 Building Construction - 2026

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

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	0.0293	1.8674	0.5345	8.1200e-003	0.2624	0.0137	0.2760	0.0719	0.0131	0.0850		896.1425	896.1425	0.0531	0.1425	939.9381
Vendor	0.0295	1.1348	0.4236	5.1800e-003	0.1921	6.3900e-003	0.1985	0.0553	6.1100e-003	0.0614		559.4507	559.4507	0.0198	0.0813	584.1850
Worker	0.5736	0.3500	5.3098	0.0172	2.2914	0.0111	2.3025	0.6077	0.0102	0.6179		1,737.1373	1,737.1373	0.0372	0.0403	1,750.0818
Total	**0.6325**	**3.3522**	**6.2679**	**0.0305**	**2.7459**	**0.0312**	**2.7770**	**0.7349**	**0.0294**	**0.7643**		**3,192.7305**	**3,192.7305**	**0.1101**	**0.2642**	**3,274.2049**

3.5 Paving - 2027

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.745 2**	**2,206.745 2**	**0.7137**		**2,224.587 8**

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	0.0290	1.8468	0.5383	7.9400e-003	0.2624	0.0136	0.2760	0.0719	0.0130	0.0849		877.7152	877.7152	0.0531	0.1396	920.6491
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	0.0397	0.0234	0.3672	1.2200e-003	0.1677	7.6000e-004	0.1684	0.0445	7.0000e-004	0.0452		123.5355	123.5355	2.4900e-003	2.8000e-003	124.4324
Total	**0.0687**	**1.8702**	**0.9055**	**9.1600e-003**	**0.4300**	**0.0143**	**0.4444**	**0.1164**	**0.0137**	**0.1301**		**1,001.250 7**	**1,001.250 7**	**0.0556**	**0.1424**	**1,045.081 5**

3.5 Paving - 2027

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.745 2	2,206.745 2	0.7137		2,224.587 8
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.745 2**	**2,206.745 2**	**0.7137**		**2,224.587 8**

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	0.0290	1.8468	0.5383	7.9400e-003	0.2624	0.0136	0.2760	0.0719	0.0130	0.0849		877.7152	877.7152	0.0531	0.1396	920.6491
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	0.0397	0.0234	0.3672	1.2200e-003	0.1677	7.6000e-004	0.1684	0.0445	7.0000e-004	0.0452		123.5355	123.5355	2.4900e-003	2.8000e-003	124.4324
Total	**0.0687**	**1.8702**	**0.9055**	**9.1600e-003**	**0.4300**	**0.0143**	**0.4444**	**0.1164**	**0.0137**	**0.1301**		**1,001.250 7**	**1,001.250 7**	**0.0556**	**0.1424**	**1,045.081 5**

3.6 Architectural Coating - 2027

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					
Archit. Coating	53.9514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**54.1223**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.1085	0.0640	1.0036	3.3400e-003	0.4583	2.0800e-003	0.4604	0.1215	1.9200e-003	0.1235		337.6636	337.6636	6.8000e-003	7.6600e-003	340.1152
Total	**0.1085**	**0.0640**	**1.0036**	**3.3400e-003**	**0.4583**	**2.0800e-003**	**0.4604**	**0.1215**	**1.9200e-003**	**0.1235**		**337.6636**	**337.6636**	**6.8000e-003**	**7.6600e-003**	**340.1152**

3.6 Architectural Coating - 2027

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					
Archit. Coating	53.9514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**54.1223**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.1085	0.0640	1.0036	3.3400e-003	0.4583	2.0800e-003	0.4604	0.1215	1.9200e-003	0.1235		337.6636	337.6636	6.8000e-003	7.6600e-003	340.1152
Total	**0.1085**	**0.0640**	**1.0036**	**3.3400e-003**	**0.4583**	**2.0800e-003**	**0.4604**	**0.1215**	**1.9200e-003**	**0.1235**		**337.6636**	**337.6636**	**6.8000e-003**	**7.6600e-003**	**340.1152**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0387	4.5566	40.3266	0.0927	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,461.767 5	9,461.767 5	0.6157	0.4187	9,601.933 9
Unmitigated	4.0387	4.5566	40.3266	0.0927	11.1641	0.0663	11.2304	2.9752	0.0617	3.0369		9,461.767 5	9,461.767 5	0.6157	0.4187	9,601.933 9

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,550.40	1,399.35	1165.65	5,036,394	5,036,394
Total	1,550.40	1,399.35	1,165.65	5,036,394	5,036,394

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.540015	0.063309	0.186717	0.127205	0.023780	0.006682	0.012512	0.009167	0.000820	0.000485	0.025014	0.000756	0.003538

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
NaturalGas Unmitigated	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482

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					
Apartments Mid Rise	10202.7	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Total		**0.1100**	**0.9403**	**0.4001**	**6.0000e-003**		**0.0760**	**0.0760**		**0.0760**	**0.0760**		**1,200.3153**	**1,200.3153**	**0.0230**	**0.0220**	**1,207.4482**

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					
Apartments Mid Rise	10.2027	0.1100	0.9403	0.4001	6.0000e-003		0.0760	0.0760		0.0760	0.0760		1,200.3153	1,200.3153	0.0230	0.0220	1,207.4482
Total		**0.1100**	**0.9403**	**0.4001**	**6.0000e-003**		**0.0760**	**0.0760**		**0.0760**	**0.0760**		**1,200.3153**	**1,200.3153**	**0.0230**	**0.0220**	**1,207.4482**

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	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473
Unmitigated	83.7331	6.1839	168.4279	0.3710		21.9010	21.9010		21.9010	21.9010	2,669.5717	5,172.3374	7,841.9092	8.0017	0.1812	8,095.9473

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	0.6652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.6803	5.9133	144.9373	0.3698		21.7707	21.7707		21.7707	21.7707	2,669.5717	5,130.0000	7,799.5717	7.9612	0.1812	8,052.5963
Landscaping	0.7053	0.2706	23.4906	1.2400e-003		0.1303	0.1303		0.1303	0.1303		42.3374	42.3374	0.0405		43.3510
Total	**83.7331**	**6.1839**	**168.4279**	**0.3710**		**21.9010**	**21.9010**		**21.9010**	**21.9010**	**2,669.5717**	**5,172.3374**	**7,841.9092**	**8.0017**	**0.1812**	**8,095.9473**

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	0.6652					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.6824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	74.6803	5.9133	144.9373	0.3698		21.7707	21.7707		21.7707	21.7707	2,669.5717	5,130.0000	7,799.5717	7.9612	0.1812	8,052.5963
Landscaping	0.7053	0.2706	23.4906	1.2400e-003		0.1303	0.1303		0.1303	0.1303		42.3374	42.3374	0.0405		43.3510
Total	**83.7331**	**6.1839**	**168.4279**	**0.3710**		**21.9010**	**21.9010**		**21.9010**	**21.9010**	**2,669.5717**	**5,172.3374**	**7,841.9092**	**8.0017**	**0.1812**	**8,095.9473**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

USU Renovation/Addition and Cafeteria Replacement

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	42.00
tblTripsAndVMT	HaulingTripNumber	151.00	301.00
tblTripsAndVMT	HaulingTripNumber	0.00	352.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,396.00
tblTripsAndVMT	HaulingTripNumber	0.00	168.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2026	0.1183	1.0877	1.0814	2.4000e-003	0.1987	0.0405	0.2392	0.0850	0.0382	0.1232	0.0000	209.3880	209.3880	0.0394	5.4500e-003	211.9981
2027	0.1816	1.4671	1.7252	3.5600e-003	0.0456	0.0521	0.0977	0.0124	0.0502	0.0625	0.0000	302.7985	302.7985	0.0414	7.3900e-003	306.0370
2028	0.1326	0.1473	0.2352	4.2000e-004	5.3800e-003	6.3800e-003	0.0118	1.4400e-003	5.9800e-003	7.4200e-003	0.0000	37.2311	37.2311	8.4600e-003	7.5000e-004	37.6671
Maximum	**0.1816**	**1.4671**	**1.7252**	**3.5600e-003**	**0.1987**	**0.0521**	**0.2392**	**0.0850**	**0.0502**	**0.1232**	**0.0000**	**302.7985**	**302.7985**	**0.0414**	**7.3900e-003**	**306.0370**

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					
2026	0.1183	1.0877	1.0814	2.4000e-003	0.0903	0.0405	0.1308	0.0360	0.0382	0.0742	0.0000	209.3878	209.3878	0.0394	5.4500e-003	211.9979
2027	0.1816	1.4671	1.7252	3.5600e-003	0.0456	0.0521	0.0977	0.0124	0.0502	0.0625	0.0000	302.7983	302.7983	0.0414	7.3900e-003	306.0367
2028	0.1326	0.1473	0.2352	4.2000e-004	5.3800e-003	6.3800e-003	0.0118	1.4400e-003	5.9800e-003	7.4200e-003	0.0000	37.2311	37.2311	8.4600e-003	7.5000e-004	37.6670
Maximum	**0.1816**	**1.4671**	**1.7252**	**3.5600e-003**	**0.0903**	**0.0521**	**0.1308**	**0.0360**	**0.0502**	**0.0742**	**0.0000**	**302.7983**	**302.7983**	**0.0414**	**7.3900e-003**	**306.0367**

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	43.41	0.00	31.09	49.60	0.00	25.36	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	5-1-2026	7-31-2026	0.4919	0.4919
2	8-1-2026	10-31-2026	0.4370	0.4370
3	11-1-2026	1-31-2027	0.4154	0.4154
4	2-1-2027	4-30-2027	0.4011	0.4011
5	5-1-2027	7-31-2027	0.4137	0.4137
6	8-1-2027	10-31-2027	0.4142	0.4142
7	11-1-2027	1-31-2028	0.3466	0.3466
8	2-1-2028	4-30-2028	0.2084	0.2084
		Highest	0.4919	0.4919

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	0.2039	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003
Energy	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	998.2514	998.2514	0.0442	0.0152	1,003.8828
Mobile	6.9565	6.7687	59.6466	0.1211	14.2567	0.0875	14.3442	3.8050	0.0814	3.8864	0.0000	11,212.9391	11,212.9391	0.8520	0.5639	11,402.2856
Waste						0.0000	0.0000		0.0000	0.0000	116.9127	0.0000	116.9127	6.9093	0.0000	289.6461
Water						0.0000	0.0000		0.0000	0.0000	4.8149	36.9549	41.7698	0.4977	0.0121	57.8035
Total	**7.2226**	**7.3332**	**60.1215**	**0.1245**	**14.2567**	**0.1304**	**14.3871**	**3.8050**	**0.1243**	**3.9293**	**121.7275**	**12,248.1467**	**12,369.8742**	**8.3032**	**0.5912**	**12,753.6194**

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	0.2039	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003
Energy	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	998.2514	998.2514	0.0442	0.0152	1,003.8828
Mobile	6.9565	6.7687	59.6466	0.1211	14.2567	0.0875	14.3442	3.8050	0.0814	3.8864	0.0000	11,212.9391	11,212.9391	0.8520	0.5639	11,402.2856
Waste						0.0000	0.0000		0.0000	0.0000	116.9127	0.0000	116.9127	6.9093	0.0000	289.6461
Water						0.0000	0.0000		0.0000	0.0000	4.8149	36.9549	41.7698	0.4977	0.0121	57.8035
Total	**7.2226**	**7.3332**	**60.1215**	**0.1245**	**14.2567**	**0.1304**	**14.3871**	**3.8050**	**0.1243**	**3.9293**	**121.7275**	**12,248.1467**	**12,369.8742**	**8.3032**	**0.5912**	**12,753.6194**

	ROG	NOx	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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	

4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	4/28/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	301.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	352.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	1,396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					0.0164	0.0000	0.0164	2.4800e-003	0.0000	2.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3634	45.3634	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**0.0164**	**0.0117**	**0.0281**	**2.4800e-003**	**0.0109**	**0.0134**	**0.0000**	**45.3634**	**45.3634**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-004	0.0189	5.3200e-003	8.0000e-005	2.5900e-003	1.4000e-004	2.7300e-003	7.1000e-004	1.3000e-004	8.4000e-004	0.0000	8.1513	8.1513	4.8000e-004	1.3000e-003	8.5497
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	7.2000e-004	4.9000e-004	7.4400e-003	2.0000e-005	3.0700e-003	2.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1813	2.1813	5.0000e-005	5.0000e-005	2.1976
Total	**1.0300e-003**	**0.0193**	**0.0128**	**1.0000e-004**	**5.6600e-003**	**1.6000e-004**	**5.8100e-003**	**1.5200e-003**	**1.4000e-004**	**1.6700e-003**	**0.0000**	**10.3326**	**10.3326**	**5.3000e-004**	**1.3500e-003**	**10.7473**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0700e-003	0.0000	6.0700e-003	9.2000e-004	0.0000	9.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3633	45.3633	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**6.0700e-003**	**0.0117**	**0.0178**	**9.2000e-004**	**0.0109**	**0.0119**	**0.0000**	**45.3633**	**45.3633**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-004	0.0189	5.3200e-003	8.0000e-005	2.5900e-003	1.4000e-004	2.7300e-003	7.1000e-004	1.3000e-004	8.4000e-004	0.0000	8.1513	8.1513	4.8000e-004	1.3000e-003	8.5497
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	7.2000e-004	4.9000e-004	7.4400e-003	2.0000e-005	3.0700e-003	2.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1813	2.1813	5.0000e-005	5.0000e-005	2.1976
Total	**1.0300e-003**	**0.0193**	**0.0128**	**1.0000e-004**	**5.6600e-003**	**1.6000e-004**	**5.8100e-003**	**1.5200e-003**	**1.4000e-004**	**1.6700e-003**	**0.0000**	**10.3326**	**10.3326**	**5.3000e-004**	**1.3500e-003**	**10.7473**

3.3 Grading - 2026

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					0.1558	0.0000	0.1558	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8323	39.8323	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.1558**	**0.0109**	**0.1667**	**0.0753**	**0.0100**	**0.0854**	**0.0000**	**39.8323**	**39.8323**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0220	6.2200e-003	1.0000e-004	3.0300e-003	1.6000e-004	3.1900e-003	8.3000e-004	1.5000e-004	9.9000e-004	0.0000	9.5324	9.5324	5.7000e-004	1.5200e-003	9.9983
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	5.7000e-004	3.8000e-004	5.8600e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.7170	1.7170	4.0000e-005	4.0000e-005	1.7298
Total	**9.3000e-004**	**0.0224**	**0.0121**	**1.2000e-004**	**5.4400e-003**	**1.7000e-004**	**5.6200e-003**	**1.4700e-003**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**11.2494**	**11.2494**	**6.1000e-004**	**1.5600e-003**	**11.7280**

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					0.0577	0.0000	0.0577	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8322	39.8322	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.0577**	**0.0109**	**0.0686**	**0.0279**	**0.0100**	**0.0380**	**0.0000**	**39.8322**	**39.8322**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0220	6.2200e-003	1.0000e-004	3.0300e-003	1.6000e-004	3.1900e-003	8.3000e-004	1.5000e-004	9.9000e-004	0.0000	9.5324	9.5324	5.7000e-004	1.5200e-003	9.9983
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	5.7000e-004	3.8000e-004	5.8600e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4300e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.7170	1.7170	4.0000e-005	4.0000e-005	1.7298
Total	**9.3000e-004**	**0.0224**	**0.0121**	**1.2000e-004**	**5.4400e-003**	**1.7000e-004**	**5.6200e-003**	**1.4700e-003**	**1.6000e-004**	**1.6400e-003**	**0.0000**	**11.2494**	**11.2494**	**6.1000e-004**	**1.5600e-003**	**11.7280**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0583	0.4582	0.5473	9.7000e-004		0.0173	0.0173		0.0167	0.0167	0.0000	79.9182	79.9182	0.0131	0.0000	80.2444
Total	**0.0583**	**0.4582**	**0.5473**	**9.7000e-004**		**0.0173**	**0.0173**		**0.0167**	**0.0167**	**0.0000**	**79.9182**	**79.9182**	**0.0131**	**0.0000**	**80.2444**

3.4 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0220	6.2200e-003	1.0000e-004	3.0300e-003	1.6000e-004	3.1900e-003	8.3000e-004	1.5000e-004	9.9000e-004	0.0000	9.5324	9.5324	5.7000e-004	1.5200e-003	9.9983
Vendor	3.6000e-004	0.0133	4.8900e-003	6.0000e-005	2.2200e-003	7.0000e-005	2.2900e-003	6.4000e-004	7.0000e-005	7.1000e-004	0.0000	5.9485	5.9485	2.1000e-004	8.6000e-004	6.2115
Worker	2.3800e-003	1.6100e-003	0.0246	8.0000e-005	0.0101	5.0000e-005	0.0102	2.6900e-003	5.0000e-005	2.7400e-003	0.0000	7.2113	7.2113	1.5000e-004	1.7000e-004	7.2650
Total	**3.1000e-003**	**0.0370**	**0.0357**	**2.4000e-004**	**0.0154**	**2.8000e-004**	**0.0157**	**4.1600e-003**	**2.7000e-004**	**4.4400e-003**	**0.0000**	**22.6922**	**22.6922**	**9.3000e-004**	**2.5500e-003**	**23.4747**

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	0.0583	0.4582	0.5473	9.7000e-004		0.0173	0.0173		0.0167	0.0167	0.0000	79.9181	79.9181	0.0131	0.0000	80.2443
Total	**0.0583**	**0.4582**	**0.5473**	**9.7000e-004**		**0.0173**	**0.0173**		**0.0167**	**0.0167**	**0.0000**	**79.9181**	**79.9181**	**0.0131**	**0.0000**	**80.2443**

3.4 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.6000e-004	0.0220	6.2200e-003	1.0000e-004	3.0300e-003	1.6000e-004	3.1900e-003	8.3000e-004	1.5000e-004	9.9000e-004	0.0000	9.5324	9.5324	5.7000e-004	1.5200e-003	9.9983
Vendor	3.6000e-004	0.0133	4.8900e-003	6.0000e-005	2.2200e-003	7.0000e-005	2.2900e-003	6.4000e-004	7.0000e-005	7.1000e-004	0.0000	5.9485	5.9485	2.1000e-004	8.6000e-004	6.2115
Worker	2.3800e-003	1.6100e-003	0.0246	8.0000e-005	0.0101	5.0000e-005	0.0102	2.6900e-003	5.0000e-005	2.7400e-003	0.0000	7.2113	7.2113	1.5000e-004	1.7000e-004	7.2650
Total	**3.1000e-003**	**0.0370**	**0.0357**	**2.4000e-004**	**0.0154**	**2.8000e-004**	**0.0157**	**4.1600e-003**	**2.7000e-004**	**4.4400e-003**	**0.0000**	**22.6922**	**22.6922**	**9.3000e-004**	**2.5500e-003**	**23.4747**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1729	1.3589	1.6233	2.8800e-003		0.0512	0.0512		0.0494	0.0494	0.0000	237.0300	237.0300	0.0387	0.0000	237.9975
Total	**0.1729**	**1.3589**	**1.6233**	**2.8800e-003**		**0.0512**	**0.0512**		**0.0494**	**0.0494**	**0.0000**	**237.0300**	**237.0300**	**0.0387**	**0.0000**	**237.9975**

3.4 Building Construction - 2027

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	1.0500e-003	0.0646	0.0186	2.8000e-004	8.9800e-003	4.7000e-004	9.4600e-003	2.4700e-003	4.5000e-004	2.9200e-003	0.0000	27.6907	27.6907	1.6800e-003	4.4000e-003	29.0453
Vendor	1.0300e-003	0.0392	0.0143	1.8000e-004	6.5800e-003	2.2000e-004	6.8000e-003	1.9000e-003	2.1000e-004	2.1100e-003	0.0000	17.2911	17.2911	6.2000e-004	2.5200e-003	18.0567
Worker	6.6600e-003	4.3700e-003	0.0689	2.3000e-004	0.0301	1.4000e-004	0.0302	7.9900e-003	1.3000e-004	8.1100e-003	0.0000	20.7867	20.7867	4.1000e-004	4.7000e-004	20.9375
Total	**8.7400e-003**	**0.1082**	**0.1019**	**6.9000e-004**	**0.0456**	**8.3000e-004**	**0.0465**	**0.0124**	**7.9000e-004**	**0.0131**	**0.0000**	**65.7685**	**65.7685**	**2.7100e-003**	**7.3900e-003**	**68.0395**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1729	1.3589	1.6233	2.8800e-003		0.0512	0.0512		0.0494	0.0494	0.0000	237.0298	237.0298	0.0387	0.0000	237.9973
Total	**0.1729**	**1.3589**	**1.6233**	**2.8800e-003**		**0.0512**	**0.0512**		**0.0494**	**0.0494**	**0.0000**	**237.0298**	**237.0298**	**0.0387**	**0.0000**	**237.9973**

3.4 Building Construction - 2027

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	1.0500e-003	0.0646	0.0186	2.8000e-004	8.9800e-003	4.7000e-004	9.4600e-003	2.4700e-003	4.5000e-004	2.9200e-003	0.0000	27.6907	27.6907	1.6800e-003	4.4000e-003	29.0453
Vendor	1.0300e-003	0.0392	0.0143	1.8000e-004	6.5800e-003	2.2000e-004	6.8000e-003	1.9000e-003	2.1000e-004	2.1100e-003	0.0000	17.2911	17.2911	6.2000e-004	2.5200e-003	18.0567
Worker	6.6600e-003	4.3700e-003	0.0689	2.3000e-004	0.0301	1.4000e-004	0.0302	7.9900e-003	1.3000e-004	8.1100e-003	0.0000	20.7867	20.7867	4.1000e-004	4.7000e-004	20.9375
Total	**8.7400e-003**	**0.1082**	**0.1019**	**6.9000e-004**	**0.0456**	**8.3000e-004**	**0.0465**	**0.0124**	**7.9000e-004**	**0.0131**	**0.0000**	**65.7685**	**65.7685**	**2.7100e-003**	**7.3900e-003**	**68.0395**

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.1118	0.1847	2.8000e-004		5.1800e-003	5.1800e-003		4.7800e-003	4.7800e-003	0.0000	24.7244	24.7244	7.8400e-003	0.0000	24.9204
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0120**	**0.1118**	**0.1847**	**2.8000e-004**		**5.1800e-003**	**5.1800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**24.7244**	**24.7244**	**7.8400e-003**	**0.0000**	**24.9204**

3.5 Paving - 2028

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	1.7000e-004	0.0103	3.0100e-003	4.0000e-005	1.4500e-003	8.0000e-005	1.5200e-003	4.0000e-004	7.0000e-005	4.7000e-004	0.0000	4.3639	4.3639	2.7000e-004	6.9000e-004	4.5776
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	6.3000e-004	4.0000e-004	6.5300e-003	2.0000e-005	3.0000e-003	1.0000e-005	3.0100e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	2.0177	2.0177	4.0000e-005	4.0000e-005	2.0320
Total	**8.0000e-004**	**0.0107**	**9.5400e-003**	**6.0000e-005**	**4.4500e-003**	**9.0000e-005**	**4.5300e-003**	**1.2000e-003**	**8.0000e-005**	**1.2800e-003**	**0.0000**	**6.3816**	**6.3816**	**3.1000e-004**	**7.3000e-004**	**6.6096**

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	0.0120	0.1118	0.1847	2.8000e-004		5.1800e-003	5.1800e-003		4.7800e-003	4.7800e-003	0.0000	24.7244	24.7244	7.8400e-003	0.0000	24.9203
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0120**	**0.1118**	**0.1847**	**2.8000e-004**		**5.1800e-003**	**5.1800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**24.7244**	**24.7244**	**7.8400e-003**	**0.0000**	**24.9203**

3.5 Paving - 2028

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	1.7000e-004	0.0103	3.0100e-003	4.0000e-005	1.4500e-003	8.0000e-005	1.5200e-003	4.0000e-004	7.0000e-005	4.7000e-004	0.0000	4.3639	4.3639	2.7000e-004	6.9000e-004	4.5776
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	6.3000e-004	4.0000e-004	6.5300e-003	2.0000e-005	3.0000e-003	1.0000e-005	3.0100e-003	8.0000e-004	1.0000e-005	8.1000e-004	0.0000	2.0177	2.0177	4.0000e-005	4.0000e-005	2.0320
Total	**8.0000e-004**	**0.0107**	**9.5400e-003**	**6.0000e-005**	**4.4500e-003**	**9.0000e-005**	**4.5300e-003**	**1.2000e-003**	**8.0000e-005**	**1.2800e-003**	**0.0000**	**6.3816**	**6.3816**	**3.1000e-004**	**7.3000e-004**	**6.6096**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	**0.1196**	**0.0246**	**0.0389**	**6.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**5.4895**	**5.4895**	**3.0000e-004**	**0.0000**	**5.4970**

3.6 Architectural Coating - 2028

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	2.0000e-004	1.3000e-004	2.0600e-003	1.0000e-005	9.4000e-004	0.0000	9.5000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.6356	0.6356	1.0000e-005	1.0000e-005	0.6401
Total	**2.0000e-004**	**1.3000e-004**	**2.0600e-003**	**1.0000e-005**	**9.4000e-004**	**0.0000**	**9.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.6356**	**0.6356**	**1.0000e-005**	**1.0000e-005**	**0.6401**

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					
Archit. Coating	0.1159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	**0.1196**	**0.0246**	**0.0389**	**6.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**5.4895**	**5.4895**	**3.0000e-004**	**0.0000**	**5.4970**

3.6 Architectural Coating - 2028

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	2.0000e-004	1.3000e-004	2.0600e-003	1.0000e-005	9.4000e-004	0.0000	9.5000e-004	2.5000e-004	0.0000	2.5000e-004	0.0000	0.6356	0.6356	1.0000e-005	1.0000e-005	0.6401
Total	**2.0000e-004**	**1.3000e-004**	**2.0600e-003**	**1.0000e-005**	**9.4000e-004**	**0.0000**	**9.5000e-004**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**0.6356**	**0.6356**	**1.0000e-005**	**1.0000e-005**	**0.6401**

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	6.9565	6.7687	59.6466	0.1211	14.2567	0.0875	14.3442	3.8050	0.0814	3.8864	0.0000	11,212.93 91	11,212.93 91	0.8520	0.5639	11,402.28 56
Unmitigated	6.9565	6.7687	59.6466	0.1211	14.2567	0.0875	14.3442	3.8050	0.0814	3.8864	0.0000	11,212.93 91	11,212.93 91	0.8520	0.5639	11,402.28 56

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	17,311.50	34,800.00	25000.00	37,865,691	37,865,691
Total	17,311.50	34,800.00	25,000.00	37,865,691	37,865,691

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
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

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	383.6871	383.6871	0.0324	3.9300e-003	385.6665
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	383.6871	383.6871	0.0324	3.9300e-003	385.6665
NaturalGas Mitigated	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	614.5643	614.5643	0.0118	0.0113	618.2164
NaturalGas Unmitigated	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	614.5643	614.5643	0.0118	0.0113	618.2164

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					
Fast Food Restaurant w/o Drive Thru	1.15165e+007	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	614.5643	614.5643	0.0118	0.0113	618.2164
Total		**0.0621**	**0.5645**	**0.4742**	**3.3900e-003**		**0.0429**	**0.0429**		**0.0429**	**0.0429**	**0.0000**	**614.5643**	**614.5643**	**0.0118**	**0.0113**	**618.2164**

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					
Fast Food Restaurant w/o Drive Thru	1.15165e+007	0.0621	0.5645	0.4742	3.3900e-003		0.0429	0.0429		0.0429	0.0429	0.0000	614.5643	614.5643	0.0118	0.0113	618.2164
Total		**0.0621**	**0.5645**	**0.4742**	**3.3900e-003**		**0.0429**	**0.0429**		**0.0429**	**0.0429**	**0.0000**	**614.5643**	**614.5643**	**0.0118**	**0.0113**	**618.2164**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	2.1635e +006	383.6871	0.0324	3.9300e-003	385.6665
Total		**383.6871**	**0.0324**	**3.9300e-003**	**385.6665**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Fast Food Restaurant w/o Drive Thru	2.1635e +006	383.6871	0.0324	3.9300e-003	385.6665
Total		**383.6871**	**0.0324**	**3.9300e-003**	**385.6665**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2039	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003
Unmitigated	0.2039	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1807					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003
Total	**0.2039**	**1.0000e-005**	**6.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**0.0000**	**0.0000**	**1.3200e-003**

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	0.0232					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1807					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2400e-003	1.2400e-003	0.0000	0.0000	1.3200e-003
Total	**0.2039**	**1.0000e-005**	**6.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2400e-003**	**1.2400e-003**	**0.0000**	**0.0000**	**1.3200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	41.7698	0.4977	0.0121	57.8035
Unmitigated	41.7698	0.4977	0.0121	57.8035

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	15.1767 / 0.968725	41.7698	0.4977	0.0121	57.8035
Total		**41.7698**	**0.4977**	**0.0121**	**57.8035**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Fast Food Restaurant w/o Drive Thru	15.1767 / 0.968725	41.7698	0.4977	0.0121	57.8035
Total		**41.7698**	**0.4977**	**0.0121**	**57.8035**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	116.9127	6.9093	0.0000	289.6461
Unmitigated	116.9127	6.9093	0.0000	289.6461

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	575.95	116.9127	6.9093	0.0000	289.6461
Total		**116.9127**	**6.9093**	**0.0000**	**289.6461**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	575.95	116.9127	6.9093	0.0000	289.6461
Total		**116.9127**	**6.9093**	**0.0000**	**289.6461**

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

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

USU Renovation/Addition and Cafeteria Replacement

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	42.00
tblTripsAndVMT	HaulingTripNumber	151.00	301.00
tblTripsAndVMT	HaulingTripNumber	0.00	352.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,396.00
tblTripsAndVMT	HaulingTripNumber	0.00	168.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	1.3965	13.7577	13.9491	0.0291	7.3343	0.5523	7.8382	3.4927	0.5158	3.9566	0.0000	2,860.4337	2,860.4337	0.6757	0.0778	2,896.2917
2027	1.3931	11.1989	13.2562	0.0274	0.3559	0.3989	0.7548	0.0962	0.3846	0.4808	0.0000	2,565.4401	2,565.4401	0.3498	0.0621	2,592.6957
2028	5.5698	5.8081	9.2717	0.0167	0.2153	0.2507	0.4660	0.0577	0.2316	0.2893	0.0000	1,637.4877	1,637.4877	0.4276	0.0386	1,659.6866
Maximum	**5.5698**	**13.7577**	**13.9491**	**0.0291**	**7.3343**	**0.5523**	**7.8382**	**3.4927**	**0.5158**	**3.9566**	**0.0000**	**2,860.4337**	**2,860.4337**	**0.6757**	**0.0778**	**2,896.2917**

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					
2026	1.3965	13.7577	13.9491	0.0291	2.8758	0.5523	3.3797	1.3369	0.5158	1.8007	0.0000	2,860.4337	2,860.4337	0.6757	0.0778	2,896.2917
2027	1.3931	11.1989	13.2562	0.0274	0.3559	0.3989	0.7548	0.0962	0.3846	0.4808	0.0000	2,565.4401	2,565.4401	0.3498	0.0621	2,592.6957
2028	5.5698	5.8081	9.2717	0.0167	0.2153	0.2507	0.4660	0.0577	0.2316	0.2893	0.0000	1,637.4877	1,637.4877	0.4276	0.0386	1,659.6866
Maximum	**5.5698**	**13.7577**	**13.9491**	**0.0291**	**2.8758**	**0.5523**	**3.3797**	**1.3369**	**0.5158**	**1.8007**	**0.0000**	**2,860.4337**	**2,860.4337**	**0.6757**	**0.0778**	**2,896.2917**

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	56.40	0.00	49.22	59.12	0.00	45.61	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Energy	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Mobile	68.4322	57.2438	545.6132	1.1479	132.8099	0.8011	133.6111	35.3937	0.7451	36.1388		117,093.9489	117,093.9489	8.2962	5.4550	118,926.9434
Total	**69.8899**	**60.3372**	**548.2166**	**1.1665**	**132.8099**	**1.0362**	**133.8462**	**35.3937**	**0.9802**	**36.3739**		**120,805.9663**	**120,805.9663**	**8.3674**	**5.5231**	**122,661.0201**

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	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Energy	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Mobile	68.4322	57.2438	545.6132	1.1479	132.8099	0.8011	133.6111	35.3937	0.7451	36.1388		117,093.9489	117,093.9489	8.2962	5.4550	118,926.9434
Total	**69.8899**	**60.3372**	**548.2166**	**1.1665**	**132.8099**	**1.0362**	**133.8462**	**35.3937**	**0.9802**	**36.3739**		**120,805.9663**	**120,805.9663**	**8.3674**	**5.5231**	**122,661.0201**

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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	
4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	4/28/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	301.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	352.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	1,396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					0.7624	0.0000	0.7624	0.1154	0.0000	0.1154			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.7624**	**0.5452**	**1.3077**	**0.1154**	**0.5091**	**0.6245**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0147	0.8316	0.2460	3.7800e-003	0.1224	6.3700e-003	0.1288	0.0336	6.0900e-003	0.0397		417.7146	417.7146	0.0248	0.0664	438.1307
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0488**	**0.8519**	**0.6175**	**4.9400e-003**	**0.2678**	**7.0700e-003**	**0.2748**	**0.0721**	**6.7400e-003**	**0.0788**		**534.6403**	**534.6403**	**0.0272**	**0.0688**	**555.8333**

3.2 Demolition - 2026

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					0.2825	0.0000	0.2825	0.0428	0.0000	0.0428			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.2825**	**0.5452**	**0.8277**	**0.0428**	**0.5091**	**0.5518**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0147	0.8316	0.2460	3.7800e-003	0.1224	6.3700e-003	0.1288	0.0336	6.0900e-003	0.0397		417.7146	417.7146	0.0248	0.0664	438.1307
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	0.0341	0.0203	0.3715	1.1600e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		116.9257	116.9257	2.3200e-003	2.4100e-003	117.7027
Total	**0.0488**	**0.8519**	**0.6175**	**4.9400e-003**	**0.2678**	**7.0700e-003**	**0.2748**	**0.0721**	**6.7400e-003**	**0.0788**		**534.6403**	**534.6403**	**0.0272**	**0.0688**	**555.8333**

3.3 Grading - 2026

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0431**	**0.9661**	**0.5669**	**5.2100e-003**	**0.2517**	**7.8200e-003**	**0.2595**	**0.0680**	**7.4600e-003**	**0.0755**		**567.3310**	**567.3310**	**0.0302**	**0.0778**	**591.2613**

3.3 Grading - 2026

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0168	0.9504	0.2812	4.3200e-003	0.1399	7.2800e-003	0.1472	0.0384	6.9600e-003	0.0453		477.3881	477.3881	0.0284	0.0759	500.7207
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	0.0263	0.0156	0.2858	8.9000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		89.9429	89.9429	1.7800e-003	1.8600e-003	90.5405
Total	**0.0431**	**0.9661**	**0.5669**	**5.2100e-003**	**0.2517**	**7.8200e-003**	**0.2595**	**0.0680**	**7.4600e-003**	**0.0755**		**567.3310**	**567.3310**	**0.0302**	**0.0778**	**591.2613**

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

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	8.4000e-003	0.4752	0.1406	2.1600e-003	0.0700	3.6400e-003	0.0736	0.0192	3.4800e-003	0.0227		238.6941	238.6941	0.0142	0.0380	250.3604
Vendor	8.2800e-003	0.2883	0.1094	1.3800e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6200e-003	0.0164		148.9054	148.9054	5.3000e-003	0.0216	155.4850
Worker	0.0552	0.0328	0.6001	1.8700e-003	0.2347	1.1400e-003	0.2359	0.0623	1.0500e-003	0.0633		188.8800	188.8800	3.7400e-003	3.9000e-003	190.1351
Total	**0.0718**	**0.7963**	**0.8501**	**5.4100e-003**	**0.3559**	**6.4800e-003**	**0.3624**	**0.0962**	**6.1500e-003**	**0.1023**		**576.4795**	**576.4795**	**0.0232**	**0.0635**	**595.9805**

3.4 Building Construction - 2026

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	8.4000e-003	0.4752	0.1406	2.1600e-003	0.0700	3.6400e-003	0.0736	0.0192	3.4800e-003	0.0227		238.6941	238.6941	0.0142	0.0380	250.3604
Vendor	8.2800e-003	0.2883	0.1094	1.3800e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6200e-003	0.0164		148.9054	148.9054	5.3000e-003	0.0216	155.4850
Worker	0.0552	0.0328	0.6001	1.8700e-003	0.2347	1.1400e-003	0.2359	0.0623	1.0500e-003	0.0633		188.8800	188.8800	3.7400e-003	3.9000e-003	190.1351
Total	**0.0718**	**0.7963**	**0.8501**	**5.4100e-003**	**0.3559**	**6.4800e-003**	**0.3624**	**0.0962**	**6.1500e-003**	**0.1023**		**576.4795**	**576.4795**	**0.0232**	**0.0635**	**595.9805**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
Vendor	8.1300e-003	0.2862	0.1083	1.3500e-003	0.0512	1.6900e-003	0.0529	0.0148	1.6200e-003	0.0164		145.9374	145.9374	5.2900e-003	0.0212	152.3954
Worker	0.0520	0.0300	0.5669	1.8200e-003	0.2347	1.0700e-003	0.2358	0.0623	9.8000e-004	0.0632		183.5672	183.5672	3.4200e-003	3.7000e-003	184.7558
Total	**0.0685**	**0.7861**	**0.8168**	**5.2900e-003**	**0.3559**	**6.3800e-003**	**0.3623**	**0.0962**	**6.0600e-003**	**0.1022**		**563.2876**	**563.2876**	**0.0229**	**0.0621**	**582.3709**

3.4 Building Construction - 2027

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
Vendor	8.1300e-003	0.2862	0.1083	1.3500e-003	0.0512	1.6900e-003	0.0529	0.0148	1.6200e-003	0.0164		145.9374	145.9374	5.2900e-003	0.0212	152.3954
Worker	0.0520	0.0300	0.5669	1.8200e-003	0.2347	1.0700e-003	0.2358	0.0623	9.8000e-004	0.0632		183.5672	183.5672	3.4200e-003	3.7000e-003	184.7558
Total	**0.0685**	**0.7861**	**0.8168**	**5.2900e-003**	**0.3559**	**6.3800e-003**	**0.3623**	**0.0962**	**6.0600e-003**	**0.1022**		**563.2876**	**563.2876**	**0.0229**	**0.0621**	**582.3709**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0387**	**0.4822**	**0.4766**	**3.1700e-003**	**0.2153**	**4.2100e-003**	**0.2195**	**0.0577**	**4.0000e-003**	**0.0617**		**339.6781**	**339.6781**	**0.0162**	**0.0386**	**351.5915**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**	**0.0000**	**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
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	0.0304	0.0171	0.3338	1.1000e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		110.7292	110.7292	1.9400e-003	2.1900e-003	111.4306
Total	**0.0387**	**0.4822**	**0.4766**	**3.1700e-003**	**0.2153**	**4.2100e-003**	**0.2195**	**0.0577**	**4.0000e-003**	**0.0617**		**339.6781**	**339.6781**	**0.0162**	**0.0386**	**351.5915**

3.6 Architectural Coating - 2028

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					
Archit. Coating	5.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.5604**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	9.3600e-003	5.2700e-003	0.1027	3.4000e-004	0.0447	1.9000e-004	0.0449	0.0119	1.7000e-004	0.0120		34.0705	34.0705	6.0000e-004	6.7000e-004	34.2863
Total	**9.3600e-003**	**5.2700e-003**	**0.1027**	**3.4000e-004**	**0.0447**	**1.9000e-004**	**0.0449**	**0.0119**	**1.7000e-004**	**0.0120**		**34.0705**	**34.0705**	**6.0000e-004**	**6.7000e-004**	**34.2863**

3.6 Architectural Coating - 2028

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					
Archit. Coating	5.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.5604**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	9.3600e-003	5.2700e-003	0.1027	3.4000e-004	0.0447	1.9000e-004	0.0449	0.0119	1.7000e-004	0.0120		34.0705	34.0705	6.0000e-004	6.7000e-004	34.2863
Total	**9.3600e-003**	**5.2700e-003**	**0.1027**	**3.4000e-004**	**0.0447**	**1.9000e-004**	**0.0449**	**0.0119**	**1.7000e-004**	**0.0120**		**34.0705**	**34.0705**	**6.0000e-004**	**6.7000e-004**	**34.2863**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	68.4322	57.2438	545.6132	1.1479	132.8099	0.8011	133.6111	35.3937	0.7451	36.1388		117,093.9489	117,093.9489	8.2962	5.4550	118,926.9434
Unmitigated	68.4322	57.2438	545.6132	1.1479	132.8099	0.8011	133.6111	35.3937	0.7451	36.1388		117,093.9489	117,093.9489	8.2962	5.4550	118,926.9434

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	17,311.50	34,800.00	25000.00	37,865,691	37,865,691
Total	17,311.50	34,800.00	25,000.00	37,865,691	37,865,691

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
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.006 5	3,712.006 5	0.0712	0.0681	3,734.065 0
NaturalGas Unmitigated	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.006 5	3,712.006 5	0.0712	0.0681	3,734.065 0

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					
Fast Food Restaurant w/o Drive Thru	31552.1	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.006 5	3,712.006 5	0.0712	0.0681	3,734.065 0
Total		**0.3403**	**3.0933**	**2.5984**	**0.0186**		**0.2351**	**0.2351**		**0.2351**	**0.2351**		**3,712.006 5**	**3,712.006 5**	**0.0712**	**0.0681**	**3,734.065 0**

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					
Fast Food Restaurant w/o Drive Thru	31.5521	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Total		**0.3403**	**3.0933**	**2.5984**	**0.0186**		**0.2351**	**0.2351**		**0.2351**	**0.2351**		**3,712.0065**	**3,712.0065**	**0.0712**	**0.0681**	**3,734.0650**

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	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Unmitigated	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117

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	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Total	**1.1175**	**5.0000e-005**	**5.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0109**	**0.0109**	**3.0000e-005**		**0.0117**

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	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Total	**1.1175**	**5.0000e-005**	**5.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0109**	**0.0109**	**3.0000e-005**		**0.0117**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

USU Renovation/Addition and Cafeteria Replacement

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Fast Food Restaurant w/o Drive Thru	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	200.00	349.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	4.00	44.00
tblConstructionPhase	NumDays	10.00	42.00
tblTripsAndVMT	HaulingTripNumber	151.00	301.00
tblTripsAndVMT	HaulingTripNumber	0.00	352.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,396.00
tblTripsAndVMT	HaulingTripNumber	0.00	168.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2026	1.3991	13.7994	13.9177	0.0290	7.3343	0.5523	7.8382	3.4927	0.5158	3.9566	0.0000	2,854.1531	2,854.1531	0.6756	0.0780	2,890.0770
2027	1.3957	11.2385	13.2087	0.0272	0.3559	0.3989	0.7548	0.0962	0.3846	0.4808	0.0000	2,555.3764	2,555.3764	0.3498	0.0624	2,582.7273
2028	5.5704	5.8320	9.2426	0.0167	0.2153	0.2507	0.4660	0.0577	0.2316	0.2894	0.0000	1,631.3545	1,631.3545	0.4276	0.0388	1,653.6051
Maximum	**5.5704**	**13.7994**	**13.9177**	**0.0290**	**7.3343**	**0.5523**	**7.8382**	**3.4927**	**0.5158**	**3.9566**	**0.0000**	**2,854.1531**	**2,854.1531**	**0.6756**	**0.0780**	**2,890.0770**

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					
2026	1.3991	13.7994	13.9177	0.0290	2.8758	0.5523	3.3797	1.3369	0.5158	1.8007	0.0000	2,854.1531	2,854.1531	0.6756	0.0780	2,890.0770
2027	1.3957	11.2385	13.2087	0.0272	0.3559	0.3989	0.7548	0.0962	0.3846	0.4808	0.0000	2,555.3764	2,555.3764	0.3498	0.0624	2,582.7273
2028	5.5704	5.8320	9.2426	0.0167	0.2153	0.2507	0.4660	0.0577	0.2316	0.2894	0.0000	1,631.3545	1,631.3545	0.4276	0.0388	1,653.6051
Maximum	**5.5704**	**13.7994**	**13.9177**	**0.0290**	**2.8758**	**0.5523**	**3.3797**	**1.3369**	**0.5158**	**1.8007**	**0.0000**	**2,854.1531**	**2,854.1531**	**0.6756**	**0.0780**	**2,890.0770**

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	56.40	0.00	49.22	59.12	0.00	45.61	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Energy	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Mobile	64.8037	61.4862	542.7745	1.0963	132.8099	0.8017	133.6117	35.3937	0.7456	36.1394		111,888.7169	111,888.7169	8.6516	5.6715	113,795.1053
Total	**66.2614**	**64.5796**	**545.3780**	**1.1149**	**132.8099**	**1.0369**	**133.8468**	**35.3937**	**0.9807**	**36.3745**		**115,600.7343**	**115,600.7343**	**8.7228**	**5.7395**	**117,529.1820**

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	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Energy	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Mobile	64.8037	61.4862	542.7745	1.0963	132.8099	0.8017	133.6117	35.3937	0.7456	36.1394		111,888.7169	111,888.7169	8.6516	5.6715	113,795.1053
Total	**66.2614**	**64.5796**	**545.3780**	**1.1149**	**132.8099**	**1.0369**	**133.8468**	**35.3937**	**0.9807**	**36.3745**		**115,600.7343**	**115,600.7343**	**8.7228**	**5.7395**	**117,529.1820**

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	5/1/2026	6/30/2026	5	43	
2	Grading	Grading	7/1/2026	8/31/2026	5	44	
3	Building Construction	Building Construction	9/1/2026	12/31/2027	5	349	
4	Paving	Paving	1/1/2028	2/29/2028	5	42	
5	Architectural Coating	Architectural Coating	3/1/2028	4/28/2028	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

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

Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	301.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	352.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	1,396.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	168.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2026

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					0.7624	0.0000	0.7624	0.1154	0.0000	0.1154			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.7624**	**0.5452**	**1.3077**	**0.1154**	**0.5091**	**0.6245**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0137	0.8714	0.2494	3.7900e-003	0.1224	6.3800e-003	0.1288	0.0336	6.1100e-003	0.0397		418.1998	418.1998	0.0248	0.0665	438.6378
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	0.0364	0.0222	0.3367	1.0900e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		110.1599	110.1599	2.3600e-003	2.5600e-003	110.9808
Total	**0.0501**	**0.8936**	**0.5861**	**4.8800e-003**	**0.2678**	**7.0800e-003**	**0.2748**	**0.0721**	**6.7600e-003**	**0.0789**		**528.3598**	**528.3598**	**0.0272**	**0.0691**	**549.6186**

3.2 Demolition - 2026

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					0.2825	0.0000	0.2825	0.0428	0.0000	0.0428			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.2825**	**0.5452**	**0.8277**	**0.0428**	**0.5091**	**0.5518**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0137	0.8714	0.2494	3.7900e-003	0.1224	6.3800e-003	0.1288	0.0336	6.1100e-003	0.0397		418.1998	418.1998	0.0248	0.0665	438.6378
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	0.0364	0.0222	0.3367	1.0900e-003	0.1453	7.0000e-004	0.1460	0.0385	6.5000e-004	0.0392		110.1599	110.1599	2.3600e-003	2.5600e-003	110.9808
Total	**0.0501**	**0.8936**	**0.5861**	**4.8800e-003**	**0.2678**	**7.0800e-003**	**0.2748**	**0.0721**	**6.7600e-003**	**0.0789**		**528.3598**	**528.3598**	**0.0272**	**0.0691**	**549.6186**

3.3 Grading - 2026

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0157	0.9959	0.2850	4.3300e-003	0.1399	7.2900e-003	0.1472	0.0384	6.9800e-003	0.0453		477.9427	477.9427	0.0283	0.0760	501.3003
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	0.0280	0.0171	0.2590	8.4000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		84.7384	84.7384	1.8100e-003	1.9700e-003	85.3699
Total	**0.0436**	**1.0130**	**0.5441**	**5.1700e-003**	**0.2517**	**7.8300e-003**	**0.2595**	**0.0680**	**7.4800e-003**	**0.0755**		**562.6811**	**562.6811**	**0.0301**	**0.0780**	**586.6702**

3.3 Grading - 2026

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0157	0.9959	0.2850	4.3300e-003	0.1399	7.2900e-003	0.1472	0.0384	6.9800e-003	0.0453		477.9427	477.9427	0.0283	0.0760	501.3003
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	0.0280	0.0171	0.2590	8.4000e-004	0.1118	5.4000e-004	0.1123	0.0296	5.0000e-004	0.0301		84.7384	84.7384	1.8100e-003	1.9700e-003	85.3699
Total	**0.0436**	**1.0130**	**0.5441**	**5.1700e-003**	**0.2517**	**7.8300e-003**	**0.2595**	**0.0680**	**7.4800e-003**	**0.0755**		**562.6811**	**562.6811**	**0.0301**	**0.0780**	**586.6702**

3.4 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	7.8200e-003	0.4980	0.1425	2.1600e-003	0.0700	3.6500e-003	0.0736	0.0192	3.4900e-003	0.0227		238.9713	238.9713	0.0142	0.0380	250.6502
Vendor	7.8800e-003	0.3026	0.1130	1.3800e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6300e-003	0.0164		149.1868	149.1868	5.2700e-003	0.0217	155.7827
Worker	0.0588	0.0359	0.5439	1.7600e-003	0.2347	1.1400e-003	0.2359	0.0623	1.0500e-003	0.0633		177.9507	177.9507	3.8100e-003	4.1300e-003	179.2767
Total	**0.0745**	**0.8365**	**0.7994**	**5.3000e-003**	**0.3559**	**6.4900e-003**	**0.3624**	**0.0962**	**6.1700e-003**	**0.1024**		**566.1088**	**566.1088**	**0.0232**	**0.0638**	**585.7095**

3.4 Building Construction - 2026

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	7.8200e-003	0.4980	0.1425	2.1600e-003	0.0700	3.6500e-003	0.0736	0.0192	3.4900e-003	0.0227		238.9713	238.9713	0.0142	0.0380	250.6502
Vendor	7.8800e-003	0.3026	0.1130	1.3800e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6300e-003	0.0164		149.1868	149.1868	5.2700e-003	0.0217	155.7827
Worker	0.0588	0.0359	0.5439	1.7600e-003	0.2347	1.1400e-003	0.2359	0.0623	1.0500e-003	0.0633		177.9507	177.9507	3.8100e-003	4.1300e-003	179.2767
Total	**0.0745**	**0.8365**	**0.7994**	**5.3000e-003**	**0.3559**	**6.4900e-003**	**0.3624**	**0.0962**	**6.1700e-003**	**0.1024**		**566.1088**	**566.1088**	**0.0232**	**0.0638**	**585.7095**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785		2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**		**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
Vendor	7.7200e-003	0.3004	0.1118	1.3500e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6200e-003	0.0164		146.2169	146.2169	5.2600e-003	0.0213	152.6908
Worker	0.0556	0.0328	0.5140	1.7100e-003	0.2347	1.0700e-003	0.2358	0.0623	9.8000e-004	0.0632		172.9497	172.9497	3.4800e-003	3.9200e-003	174.2053
Total	**0.0710**	**0.8257**	**0.7694**	**5.1800e-003**	**0.3559**	**6.3900e-003**	**0.3623**	**0.0962**	**6.0700e-003**	**0.1022**		**553.2239**	**553.2239**	**0.0229**	**0.0624**	**572.4025**

3.4 Building Construction - 2027

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	1.3246	10.4128	12.4393	0.0221		0.3925	0.3925		0.3785	0.3785	0.0000	2,002.1524	2,002.1524	0.3269		2,010.3248
Total	**1.3246**	**10.4128**	**12.4393**	**0.0221**		**0.3925**	**0.3925**		**0.3785**	**0.3785**	**0.0000**	**2,002.1524**	**2,002.1524**	**0.3269**		**2,010.3248**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
Vendor	7.7200e-003	0.3004	0.1118	1.3500e-003	0.0512	1.7000e-003	0.0529	0.0148	1.6200e-003	0.0164		146.2169	146.2169	5.2600e-003	0.0213	152.6908
Worker	0.0556	0.0328	0.5140	1.7100e-003	0.2347	1.0700e-003	0.2358	0.0623	9.8000e-004	0.0632		172.9497	172.9497	3.4800e-003	3.9200e-003	174.2053
Total	**0.0710**	**0.8257**	**0.7694**	**5.1800e-003**	**0.3559**	**6.3900e-003**	**0.3623**	**0.0962**	**6.0700e-003**	**0.1022**		**553.2239**	**553.2239**	**0.0229**	**0.0624**	**572.4025**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276		1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**		**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
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	0.0326	0.0187	0.3028	1.0300e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		104.3249	104.3249	1.9800e-003	2.3200e-003	105.0658
Total	**0.0403**	**0.5061**	**0.4475**	**3.1000e-003**	**0.2153**	**4.2100e-003**	**0.2195**	**0.0577**	**4.0100e-003**	**0.0617**		**333.5449**	**333.5449**	**0.0162**	**0.0388**	**345.5101**

3.5 Paving - 2028

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	0.5732	5.3259	8.7951	0.0136		0.2465	0.2465		0.2276	0.2276	0.0000	1,297.8096	1,297.8096	0.4114		1,308.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5732**	**5.3259**	**8.7951**	**0.0136**		**0.2465**	**0.2465**		**0.2276**	**0.2276**	**0.0000**	**1,297.8096**	**1,297.8096**	**0.4114**		**1,308.0951**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
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	0.0326	0.0187	0.3028	1.0300e-003	0.1453	6.2000e-004	0.1459	0.0385	5.7000e-004	0.0391		104.3249	104.3249	1.9800e-003	2.3200e-003	105.0658
Total	**0.0403**	**0.5061**	**0.4475**	**3.1000e-003**	**0.2153**	**4.2100e-003**	**0.2195**	**0.0577**	**4.0100e-003**	**0.0617**		**333.5449**	**333.5449**	**0.0162**	**0.0388**	**345.5101**

3.6 Architectural Coating - 2028

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					
Archit. Coating	5.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**5.5604**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0100	5.7500e-003	0.0932	3.2000e-004	0.0447	1.9000e-004	0.0449	0.0119	1.7000e-004	0.0120		32.1000	32.1000	6.1000e-004	7.1000e-004	32.3280
Total	**0.0100**	**5.7500e-003**	**0.0932**	**3.2000e-004**	**0.0447**	**1.9000e-004**	**0.0449**	**0.0119**	**1.7000e-004**	**0.0120**		**32.1000**	**32.1000**	**6.1000e-004**	**7.1000e-004**	**32.3280**

3.6 Architectural Coating - 2028

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					
Archit. Coating	5.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**5.5604**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0100	5.7500e-003	0.0932	3.2000e-004	0.0447	1.9000e-004	0.0449	0.0119	1.7000e-004	0.0120		32.1000	32.1000	6.1000e-004	7.1000e-004	32.3280
Total	**0.0100**	**5.7500e-003**	**0.0932**	**3.2000e-004**	**0.0447**	**1.9000e-004**	**0.0449**	**0.0119**	**1.7000e-004**	**0.0120**		**32.1000**	**32.1000**	**6.1000e-004**	**7.1000e-004**	**32.3280**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	64.8037	61.4862	542.7745	1.0963	132.8099	0.8017	133.6117	35.3937	0.7456	36.1394		111,888.7169	111,888.7169	8.6516	5.6715	113,795.1053
Unmitigated	64.8037	61.4862	542.7745	1.0963	132.8099	0.8017	133.6117	35.3937	0.7456	36.1394		111,888.7169	111,888.7169	8.6516	5.6715	113,795.1053

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Fast Food Restaurant w/o Drive Thru	17,311.50	34,800.00	25000.00	37,865,691	37,865,691
Total	17,311.50	34,800.00	25,000.00	37,865,691	37,865,691

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
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Fast Food Restaurant w/o Drive Thru	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
NaturalGas Unmitigated	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650

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					
Fast Food Restaurant w/o Drive Thru	31552.1	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Total		**0.3403**	**3.0933**	**2.5984**	**0.0186**		**0.2351**	**0.2351**		**0.2351**	**0.2351**		**3,712.0065**	**3,712.0065**	**0.0712**	**0.0681**	**3,734.0650**

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					
Fast Food Restaurant w/o Drive Thru	31.5521	0.3403	3.0933	2.5984	0.0186		0.2351	0.2351		0.2351	0.2351		3,712.0065	3,712.0065	0.0712	0.0681	3,734.0650
Total		**0.3403**	**3.0933**	**2.5984**	**0.0186**		**0.2351**	**0.2351**		**0.2351**	**0.2351**		**3,712.0065**	**3,712.0065**	**0.0712**	**0.0681**	**3,734.0650**

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	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Unmitigated	1.1175	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117

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	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Total	**1.1175**	**5.0000e-005**	**5.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0109**	**0.0109**	**3.0000e-005**		**0.0117**

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	0.1270					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.9900					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		0.0109	0.0109	3.0000e-005		0.0117
Total	**1.1175**	**5.0000e-005**	**5.0900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**0.0109**	**0.0109**	**3.0000e-005**		**0.0117**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Hillside College Renovations/Addition

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	NumDays	100.00	282.00
tblConstructionPhase	NumDays	10.00	33.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	5.00	22.00
tblTripsAndVMT	HaulingTripNumber	0.00	264.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0604	0.6287	0.6321	1.3400e-003	0.1016	0.0265	0.1281	0.0462	0.0246	0.0707	0.0000	120.0105	120.0105	0.0287	3.6700e-003	121.8232
2025	0.1052	0.5966	0.7424	1.4500e-003	0.0156	0.0243	0.0399	4.2300e-003	0.0224	0.0267	0.0000	129.4777	129.4777	0.0326	3.8300e-003	131.4339
Maximum	**0.1052**	**0.6287**	**0.7424**	**1.4500e-003**	**0.1016**	**0.0265**	**0.1281**	**0.0462**	**0.0246**	**0.0707**	**0.0000**	**129.4777**	**129.4777**	**0.0326**	**3.8300e-003**	**131.4339**

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					
2024	0.0604	0.6287	0.6321	1.3400e-003	0.0464	0.0265	0.0729	0.0195	0.0246	0.0440	0.0000	120.0104	120.0104	0.0287	3.6700e-003	121.8231
2025	0.1052	0.5966	0.7424	1.4500e-003	0.0156	0.0243	0.0399	4.2300e-003	0.0224	0.0267	0.0000	129.4776	129.4776	0.0326	3.8300e-003	131.4338
Maximum	**0.1052**	**0.6287**	**0.7424**	**1.4500e-003**	**0.0464**	**0.0265**	**0.0729**	**0.0195**	**0.0246**	**0.0440**	**0.0000**	**129.4776**	**129.4776**	**0.0326**	**3.8300e-003**	**131.4338**

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	47.11	0.00	32.85	52.96	0.00	27.40	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	5-1-2024	7-31-2024	0.2926	0.2926
2	8-1-2024	10-31-2024	0.2370	0.2370
3	11-1-2024	1-31-2025	0.2317	0.2317
4	2-1-2025	4-30-2025	0.2123	0.2123
5	5-1-2025	7-31-2025	0.2189	0.2189
6	8-1-2025	9-30-2025	0.1326	0.1326
		Highest	0.2926	0.2926

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	0.0816	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	55.3400	55.3400	3.9500e-003	6.6000e-004	55.6341
Mobile	0.0707	0.0835	0.7185	1.6200e-003	0.1788	1.1800e-003	0.1800	0.0477	1.1000e-003	0.0488	0.0000	150.0436	150.0436	9.7500e-003	6.6900e-003	152.2802
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1277	12.5012	13.6289	0.1169	2.8600e-003	17.4042
Total	**0.1534**	**0.0936**	**0.7272**	**1.6800e-003**	**0.1788**	**1.9500e-003**	**0.1808**	**0.0477**	**1.8700e-003**	**0.0496**	**4.9034**	**217.8852**	**222.7886**	**0.3537**	**0.0102**	**234.6729**

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	0.0816	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Energy	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	55.3400	55.3400	3.9500e-003	6.6000e-004	55.6341
Mobile	0.0707	0.0835	0.7185	1.6200e-003	0.1788	1.1800e-003	0.1800	0.0477	1.1000e-003	0.0488	0.0000	150.0436	150.0436	9.7500e-003	6.6900e-003	152.2802
Waste						0.0000	0.0000		0.0000	0.0000	3.7756	0.0000	3.7756	0.2231	0.0000	9.3540
Water						0.0000	0.0000		0.0000	0.0000	1.1277	12.5012	13.6289	0.1169	2.8600e-003	17.4042
Total	**0.1534**	**0.0936**	**0.7272**	**1.6800e-003**	**0.1788**	**1.9500e-003**	**0.1808**	**0.0477**	**1.8700e-003**	**0.0496**	**4.9034**	**217.8852**	**222.7886**	**0.3537**	**0.0102**	**234.6729**

	ROG	**NOx**	**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	5/1/2024	6/15/2024	5	33	
2	Grading	Grading	6/16/2024	7/31/2024	5	33	
3	Building Construction	Building Construction	8/1/2024	8/29/2025	5	282	

4	Paving	Paving	8/30/2025	9/30/2025	5	22	
5	Architectural Coating	Architectural Coating	10/1/2025	10/31/2025	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	4	10.00	0.00	264.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	6.00	3.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.0102	0.0904	0.1220	2.0000e-004		4.1300e-003	4.1300e-003		3.9500e-003	3.9500e-003	0.0000	17.1942	17.1942	3.1100e-003	0.0000	17.2720
Total	**0.0102**	**0.0904**	**0.1220**	**2.0000e-004**	**0.0000**	**4.1300e-003**	**4.1300e-003**	**0.0000**	**3.9500e-003**	**3.9500e-003**	**0.0000**	**17.1942**	**17.1942**	**3.1100e-003**	**0.0000**	**17.2720**

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	0.0168	4.5700e-003	7.0000e-005	2.2700e-003	1.2000e-004	2.3900e-003	6.2000e-004	1.2000e-004	7.4000e-004	0.0000	7.4252	7.4252	4.2000e-004	1.1800e-003	7.7874
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	4.8000e-004	3.5000e-004	5.0200e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3753	1.3753	3.0000e-005	3.0000e-005	1.3862
Total	**7.5000e-004**	**0.0172**	**9.5900e-003**	**8.0000e-005**	**4.0800e-003**	**1.3000e-004**	**4.2100e-003**	**1.1000e-003**	**1.3000e-004**	**1.2300e-003**	**0.0000**	**8.8005**	**8.8005**	**4.5000e-004**	**1.2100e-003**	**9.1736**

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	0.0102	0.0904	0.1220	2.0000e-004		4.1300e-003	4.1300e-003		3.9500e-003	3.9500e-003	0.0000	17.1942	17.1942	3.1100e-003	0.0000	17.2720
Total	**0.0102**	**0.0904**	**0.1220**	**2.0000e-004**	**0.0000**	**4.1300e-003**	**4.1300e-003**	**0.0000**	**3.9500e-003**	**3.9500e-003**	**0.0000**	**17.1942**	**17.1942**	**3.1100e-003**	**0.0000**	**17.2720**

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

3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7000e-004	0.0168	4.5700e-003	7.0000e-005	2.2700e-003	1.2000e-004	2.3900e-003	6.2000e-004	1.2000e-004	7.4000e-004	0.0000	7.4252	7.4252	4.2000e-004	1.1800e-003	7.7874
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	4.8000e-004	3.5000e-004	5.0200e-003	1.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.3753	1.3753	3.0000e-005	3.0000e-005	1.3862
Total	**7.5000e-004**	**0.0172**	**9.5900e-003**	**8.0000e-005**	**4.0800e-003**	**1.3000e-004**	**4.2100e-003**	**1.1000e-003**	**1.3000e-004**	**1.2300e-003**	**0.0000**	**8.8005**	**8.8005**	**4.5000e-004**	**1.2100e-003**	**9.1736**

3.3 Grading - 2024

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					0.0877	0.0000	0.0877	0.0424	0.0000	0.0424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1605	0.0915	2.3000e-004		6.6000e-003	6.6000e-003		6.0700e-003	6.0700e-003	0.0000	20.4270	20.4270	6.6100e-003	0.0000	20.5922
Total	**0.0151**	**0.1605**	**0.0915**	**2.3000e-004**	**0.0877**	**6.6000e-003**	**0.0943**	**0.0424**	**6.0700e-003**	**0.0485**	**0.0000**	**20.4270**	**20.4270**	**6.6100e-003**	**0.0000**	**20.5922**

3.3 Grading - 2024

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	3.8000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1002	1.1002	3.0000e-005	3.0000e-005	1.1090
Total	**3.8000e-004**	**2.8000e-004**	**4.0100e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1002**	**1.1002**	**3.0000e-005**	**3.0000e-005**	**1.1090**

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					0.0325	0.0000	0.0325	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0151	0.1605	0.0915	2.3000e-004		6.6000e-003	6.6000e-003		6.0700e-003	6.0700e-003	0.0000	20.4270	20.4270	6.6100e-003	0.0000	20.5922
Total	**0.0151**	**0.1605**	**0.0915**	**2.3000e-004**	**0.0325**	**6.6000e-003**	**0.0391**	**0.0157**	**6.0700e-003**	**0.0218**	**0.0000**	**20.4270**	**20.4270**	**6.6100e-003**	**0.0000**	**20.5922**

3.3 Grading - 2024

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	3.8000e-004	2.8000e-004	4.0100e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1002	1.1002	3.0000e-005	3.0000e-005	1.1090
Total	**3.8000e-004**	**2.8000e-004**	**4.0100e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1002**	**1.1002**	**3.0000e-005**	**3.0000e-005**	**1.1090**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0324	0.3256	0.3852	6.2000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	54.6321	54.6321	0.0177	0.0000	55.0738
Total	**0.0324**	**0.3256**	**0.3852**	**6.2000e-004**		**0.0154**	**0.0154**		**0.0142**	**0.0142**	**0.0000**	**54.6321**	**54.6321**	**0.0177**	**0.0000**	**55.0738**

3.4 Building Construction - 2024

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	4.5000e-004	0.0278	7.5500e-003	1.2000e-004	3.7500e-003	2.0000e-004	3.9500e-003	1.0300e-003	1.9000e-004	1.2200e-003	0.0000	12.2629	12.2629	6.9000e-004	1.9500e-003	12.8609
Vendor	1.7000e-004	6.2600e-003	2.3300e-003	3.0000e-005	1.0300e-003	3.0000e-005	1.0700e-003	3.0000e-004	3.0000e-005	3.3000e-004	0.0000	2.8680	2.8680	1.0000e-004	4.2000e-004	2.9945
Worker	9.5000e-004	7.0000e-004	9.9400e-003	3.0000e-005	3.5900e-003	2.0000e-005	3.6100e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7256	2.7256	7.0000e-005	7.0000e-005	2.7472
Total	**1.5700e-003**	**0.0348**	**0.0198**	**1.8000e-004**	**8.3700e-003**	**2.5000e-004**	**8.6300e-003**	**2.2800e-003**	**2.4000e-004**	**2.5200e-003**	**0.0000**	**17.8565**	**17.8565**	**8.6000e-004**	**2.4400e-003**	**18.6026**

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	0.0324	0.3256	0.3852	6.2000e-004		0.0154	0.0154		0.0142	0.0142	0.0000	54.6321	54.6321	0.0177	0.0000	55.0738
Total	**0.0324**	**0.3256**	**0.3852**	**6.2000e-004**		**0.0154**	**0.0154**		**0.0142**	**0.0142**	**0.0000**	**54.6321**	**54.6321**	**0.0177**	**0.0000**	**55.0738**

3.4 Building Construction - 2024

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	4.5000e-004	0.0278	7.5500e-003	1.2000e-004	3.7500e-003	2.0000e-004	3.9500e-003	1.0300e-003	1.9000e-004	1.2200e-003	0.0000	12.2629	12.2629	6.9000e-004	1.9500e-003	12.8609
Vendor	1.7000e-004	6.2600e-003	2.3300e-003	3.0000e-005	1.0300e-003	3.0000e-005	1.0700e-003	3.0000e-004	3.0000e-005	3.3000e-004	0.0000	2.8680	2.8680	1.0000e-004	4.2000e-004	2.9945
Worker	9.5000e-004	7.0000e-004	9.9400e-003	3.0000e-005	3.5900e-003	2.0000e-005	3.6100e-003	9.5000e-004	2.0000e-005	9.7000e-004	0.0000	2.7256	2.7256	7.0000e-005	7.0000e-005	2.7472
Total	**1.5700e-003**	**0.0348**	**0.0198**	**1.8000e-004**	**8.3700e-003**	**2.5000e-004**	**8.6300e-003**	**2.2800e-003**	**2.4000e-004**	**2.5200e-003**	**0.0000**	**17.8565**	**17.8565**	**8.6000e-004**	**2.4400e-003**	**18.6026**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0477	0.4742	0.6079	9.9000e-004		0.0209	0.0209		0.0192	0.0192	0.0000	86.7558	86.7558	0.0281	0.0000	87.4573
Total	**0.0477**	**0.4742**	**0.6079**	**9.9000e-004**		**0.0209**	**0.0209**		**0.0192**	**0.0192**	**0.0000**	**86.7558**	**86.7558**	**0.0281**	**0.0000**	**87.4573**

3.4 Building Construction - 2025

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	7.1000e-004	0.0438	0.0121	1.9000e-004	5.9500e-003	3.2000e-004	6.2700e-003	1.6400e-003	3.0000e-004	1.9400e-003	0.0000	19.1102	19.1102	1.1100e-003	3.0400e-003	20.0432
Vendor	2.7000e-004	9.8800e-003	3.6500e-003	5.0000e-005	1.6400e-003	6.0000e-005	1.6900e-003	4.7000e-004	5.0000e-005	5.3000e-004	0.0000	4.4691	4.4691	1.6000e-004	6.5000e-004	4.6664
Worker	1.4200e-003	1.0000e-003	0.0147	5.0000e-005	5.6900e-003	3.0000e-005	5.7200e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.1787	4.1787	9.0000e-005	1.0000e-004	4.2108
Total	**2.4000e-003**	**0.0547**	**0.0305**	**2.9000e-004**	**0.0133**	**4.1000e-004**	**0.0137**	**3.6200e-003**	**3.8000e-004**	**4.0100e-003**	**0.0000**	**27.7579**	**27.7579**	**1.3600e-003**	**3.7900e-003**	**28.9204**

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	0.0477	0.4742	0.6079	9.9000e-004		0.0209	0.0209		0.0192	0.0192	0.0000	86.7557	86.7557	0.0281	0.0000	87.4572
Total	**0.0477**	**0.4742**	**0.6079**	**9.9000e-004**		**0.0209**	**0.0209**		**0.0192**	**0.0192**	**0.0000**	**86.7557**	**86.7557**	**0.0281**	**0.0000**	**87.4572**

3.4 Building Construction - 2025

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	7.1000e-004	0.0438	0.0121	1.9000e-004	5.9500e-003	3.2000e-004	6.2700e-003	1.6400e-003	3.0000e-004	1.9400e-003	0.0000	19.1102	19.1102	1.1100e-003	3.0400e-003	20.0432
Vendor	2.7000e-004	9.8800e-003	3.6500e-003	5.0000e-005	1.6400e-003	6.0000e-005	1.6900e-003	4.7000e-004	5.0000e-005	5.3000e-004	0.0000	4.4691	4.4691	1.6000e-004	6.5000e-004	4.6664
Worker	1.4200e-003	1.0000e-003	0.0147	5.0000e-005	5.6900e-003	3.0000e-005	5.7200e-003	1.5100e-003	3.0000e-005	1.5400e-003	0.0000	4.1787	4.1787	9.0000e-005	1.0000e-004	4.2108
Total	**2.4000e-003**	**0.0547**	**0.0305**	**2.9000e-004**	**0.0133**	**4.1000e-004**	**0.0137**	**3.6200e-003**	**3.8000e-004**	**4.0100e-003**	**0.0000**	**27.7579**	**27.7579**	**1.3600e-003**	**3.7900e-003**	**28.9204**

3.5 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2000e-003	0.0541	0.0773	1.2000e-004		2.4100e-003	2.4100e-003		2.2500e-003	2.2500e-003	0.0000	10.3410	10.3410	3.0100e-003	0.0000	10.4163
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.2000e-003**	**0.0541**	**0.0773**	**1.2000e-004**		**2.4100e-003**	**2.4100e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**10.3410**	**10.3410**	**3.0100e-003**	**0.0000**	**10.4163**

3.5 Paving - 2025

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	5.4000e-004	3.8000e-004	5.6100e-003	2.0000e-005	2.1700e-003	1.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5942	1.5942	4.0000e-005	4.0000e-005	1.6064
Total	**5.4000e-004**	**3.8000e-004**	**5.6100e-003**	**2.0000e-005**	**2.1700e-003**	**1.0000e-005**	**2.1800e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**1.5942**	**1.5942**	**4.0000e-005**	**4.0000e-005**	**1.6064**

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	6.2000e-003	0.0541	0.0773	1.2000e-004		2.4100e-003	2.4100e-003		2.2500e-003	2.2500e-003	0.0000	10.3410	10.3410	3.0100e-003	0.0000	10.4163
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.2000e-003**	**0.0541**	**0.0773**	**1.2000e-004**		**2.4100e-003**	**2.4100e-003**		**2.2500e-003**	**2.2500e-003**	**0.0000**	**10.3410**	**10.3410**	**3.0100e-003**	**0.0000**	**10.4163**

3.5 Paving - 2025

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	5.4000e-004	3.8000e-004	5.6100e-003	2.0000e-005	2.1700e-003	1.0000e-005	2.1800e-003	5.8000e-004	1.0000e-005	5.9000e-004	0.0000	1.5942	1.5942	4.0000e-005	4.0000e-005	1.6064
Total	**5.4000e-004**	**3.8000e-004**	**5.6100e-003**	**2.0000e-005**	**2.1700e-003**	**1.0000e-005**	**2.1800e-003**	**5.8000e-004**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**1.5942**	**1.5942**	**4.0000e-005**	**4.0000e-005**	**1.6064**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9600e-003	0.0132	0.0208	3.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	2.9362	2.9362	1.6000e-004	0.0000	2.9403
Total	**0.0483**	**0.0132**	**0.0208**	**3.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**2.9362**	**2.9362**	**1.6000e-004**	**0.0000**	**2.9403**

3.6 Architectural Coating - 2025

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-005	2.0000e-005	3.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0926	0.0926	0.0000	0.0000	0.0933
Total	**3.0000e-005**	**2.0000e-005**	**3.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0926**	**0.0926**	**0.0000**	**0.0000**	**0.0933**

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					
Archit. Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9600e-003	0.0132	0.0208	3.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004	0.0000	2.9362	2.9362	1.6000e-004	0.0000	2.9402
Total	**0.0483**	**0.0132**	**0.0208**	**3.0000e-005**		**5.9000e-004**	**5.9000e-004**		**5.9000e-004**	**5.9000e-004**	**0.0000**	**2.9362**	**2.9362**	**1.6000e-004**	**0.0000**	**2.9402**

3.6 Architectural Coating - 2025

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-005	2.0000e-005	3.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0926	0.0926	0.0000	0.0000	0.0933
Total	**3.0000e-005**	**2.0000e-005**	**3.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.0926**	**0.0926**	**0.0000**	**0.0000**	**0.0933**

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	0.0707	0.0835	0.7185	1.6200e-003	0.1788	1.1800e-003	0.1800	0.0477	1.1000e-003	0.0488	0.0000	150.0436	150.0436	9.7500e-003	6.6900e-003	152.2802
Unmitigated	0.0707	0.0835	0.7185	1.6200e-003	0.1788	1.1800e-003	0.1800	0.0477	1.1000e-003	0.0488	0.0000	150.0436	150.0436	9.7500e-003	6.6900e-003	152.2802

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	194.80	44.20	14.00	475,027	475,027
Total	194.80	44.20	14.00	475,027	475,027

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

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	44.3364	44.3364	3.7400e-003	4.5000e-004	44.5651
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	44.3364	44.3364	3.7400e-003	4.5000e-004	44.5651
NaturalGas Mitigated	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	11.0036	11.0036	2.1000e-004	2.0000e-004	11.0690
NaturalGas Unmitigated	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	11.0036	11.0036	2.1000e-004	2.0000e-004	11.0690

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					
General Office Building	206200	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	11.0036	11.0036	2.1000e-004	2.0000e-004	11.0690
Total		**1.1100e-003**	**0.0101**	**8.4900e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**11.0036**	**11.0036**	**2.1000e-004**	**2.0000e-004**	**11.0690**

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					
General Office Building	206200	1.1100e-003	0.0101	8.4900e-003	6.0000e-005		7.7000e-004	7.7000e-004		7.7000e-004	7.7000e-004	0.0000	11.0036	11.0036	2.1000e-004	2.0000e-004	11.0690
Total		**1.1100e-003**	**0.0101**	**8.4900e-003**	**6.0000e-005**		**7.7000e-004**	**7.7000e-004**		**7.7000e-004**	**7.7000e-004**	**0.0000**	**11.0036**	**11.0036**	**2.1000e-004**	**2.0000e-004**	**11.0690**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	250000	44.3364	3.7400e-003	4.5000e-004	44.5651
Total		**44.3364**	**3.7400e-003**	**4.5000e-004**	**44.5651**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	250000	44.3364	3.7400e-003	4.5000e-004	44.5651
Total		**44.3364**	**3.7400e-003**	**4.5000e-004**	**44.5651**

6.0 Area Detail

6.1 Mitigation Measures Area

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	tons/yr										MT/yr					
Mitigated	0.0816	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Unmitigated	0.0816	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004

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	9.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0723					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**0.0816**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

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	9.2700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0723					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**0.0816**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.6289	0.1169	2.8600e-003	17.4042
Unmitigated	13.6289	0.1169	2.8600e-003	17.4042

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.55467 / 2.17867	13.6289	0.1169	2.8600e-003	17.4042
Total		**13.6289**	**0.1169**	**2.8600e-003**	**17.4042**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	3.55467 / 2.17867	13.6289	0.1169	2.8600e-003	17.4042
Total		**13.6289**	**0.1169**	**2.8600e-003**	**17.4042**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.7756	0.2231	0.0000	9.3540
Unmitigated	3.7756	0.2231	0.0000	9.3540

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	18.6	3.7756	0.2231	0.0000	9.3540
Total		**3.7756**	**0.2231**	**0.0000**	**9.3540**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	18.6	3.7756	0.2231	0.0000	9.3540
Total		**3.7756**	**0.2231**	**0.0000**	**9.3540**

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

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

Hillside College Renovations/Addition

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	NumDays	100.00	282.00
tblConstructionPhase	NumDays	10.00	33.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	5.00	22.00
tblTripsAndVMT	HaulingTripNumber	0.00	264.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.9370	9.7451	7.9970	0.0175	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	1,740.5712	1,740.5712	0.4431	0.0809	1,770.6347
2025	4.2041	6.0816	7.5735	0.0147	0.2012	0.2459	0.4209	0.0534	0.2264	0.2689	0.0000	1,461.5657	1,461.5657	0.3749	0.0481	1,485.2817
Maximum	**4.2041**	**9.7451**	**7.9970**	**0.0175**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**1,740.5712**	**1,740.5712**	**0.4431**	**0.0809**	**1,770.6347**

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					
2024	0.9370	9.7451	7.9970	0.0175	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	1,740.5712	1,740.5712	0.4431	0.0809	1,770.6347
2025	4.2041	6.0816	7.5735	0.0147	0.2012	0.2459	0.4209	0.0534	0.2264	0.2689	0.0000	1,461.5657	1,461.5657	0.3749	0.0481	1,485.2817
Maximum	**4.2041**	**9.7451**	**7.9970**	**0.0175**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**1,740.5712**	**1,740.5712**	**0.4431**	**0.0809**	**1,770.6347**

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	59.68	0.00	53.74	61.12	0.00	50.06	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Energy	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Mobile	0.5409	0.5575	5.3290	0.0122	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,245.0421	1,245.0421	0.0762	0.0512	1,262.2160
Total	**0.9940**	**0.6129**	**5.3776**	**0.0125**	**1.3223**	**0.0128**	**1.3351**	**0.3524**	**0.0122**	**0.3646**		**1,311.5090**	**1,311.5090**	**0.0775**	**0.0525**	**1,329.0781**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Energy	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Mobile	0.5409	0.5575	5.3290	0.0122	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,245.0421	1,245.0421	0.0762	0.0512	1,262.2160
Total	**0.9940**	**0.6129**	**5.3776**	**0.0125**	**1.3223**	**0.0128**	**1.3351**	**0.3524**	**0.0122**	**0.3646**		**1,311.5090**	**1,311.5090**	**0.0775**	**0.0525**	**1,329.0781**

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	5/1/2024	6/15/2024	5	33	
2	Grading	Grading	6/16/2024	7/31/2024	5	33	
3	Building Construction	Building Construction	8/1/2024	8/29/2025	5	282	
4	Paving	Paving	8/30/2025	9/30/2025	5	22	
5	Architectural Coating	Architectural Coating	10/1/2025	10/31/2025	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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

Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	264.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	6.00	3.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

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	0.0171	0.9681	0.2755	4.5000e-003	0.1399	7.3100e-003	0.1472	0.0384	6.9900e-003	0.0454		495.8175	495.8175	0.0281	0.0788	519.9999
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0469**	**0.9873**	**0.6022**	**5.4500e-003**	**0.2517**	**7.9100e-003**	**0.2596**	**0.0680**	**7.5400e-003**	**0.0756**		**591.8839**	**591.8839**	**0.0302**	**0.0809**	**616.7477**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

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	0.0171	0.9681	0.2755	4.5000e-003	0.1399	7.3100e-003	0.1472	0.0384	6.9900e-003	0.0454		495.8175	495.8175	0.0281	0.0788	519.9999
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0469**	**0.9873**	**0.6022**	**5.4500e-003**	**0.2517**	**7.9100e-003**	**0.2596**	**0.0680**	**7.5400e-003**	**0.0756**		**591.8839**	**591.8839**	**0.0302**	**0.0809**	**616.7477**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.662 3**	**1,364.662 3**	**0.4414**		**1,375.696 2**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.662 3**	**1,364.662 3**	**0.4414**		**1,375.696 2**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
Vendor	3.2400e-003	0.1094	0.0422	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.9633	57.9633	1.9800e-003	8.4000e-003	60.5170
Worker	0.0179	0.0115	0.1960	5.7000e-004	0.0671	3.6000e-004	0.0674	0.0178	3.3000e-004	0.0181		57.6398	57.6398	1.3000e-003	1.2600e-003	58.0486
Total	**0.0297**	**0.6049**	**0.3759**	**3.3600e-003**	**0.1563**	**4.6500e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**363.5118**	**363.5118**	**0.0173**	**0.0491**	**378.5656**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
Vendor	3.2400e-003	0.1094	0.0422	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.9633	57.9633	1.9800e-003	8.4000e-003	60.5170
Worker	0.0179	0.0115	0.1960	5.7000e-004	0.0671	3.6000e-004	0.0674	0.0178	3.3000e-004	0.0181		57.6398	57.6398	1.3000e-003	1.2600e-003	58.0486
Total	**0.0297**	**0.6049**	**0.3759**	**3.3600e-003**	**0.1563**	**4.6500e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**363.5118**	**363.5118**	**0.0173**	**0.0491**	**378.5656**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.4800e-003	0.4805	0.1393	2.2100e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		243.4126	243.4126	0.0141	0.0387	255.2972
Vendor	3.1700e-003	0.1089	0.0415	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		56.9068	56.9068	1.9800e-003	8.2600e-003	59.4178
Worker	0.0167	0.0103	0.1826	5.5000e-004	0.0671	3.4000e-004	0.0674	0.0178	3.2000e-004	0.0181		55.6753	55.6753	1.1800e-003	1.1800e-003	56.0565
Total	**0.0284**	**0.5997**	**0.3634**	**3.2900e-003**	**0.1563**	**4.6400e-003**	**0.1609**	**0.0425**	**4.4300e-003**	**0.0469**		**355.9946**	**355.9946**	**0.0173**	**0.0481**	**370.7715**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.4800e-003	0.4805	0.1393	2.2100e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		243.4126	243.4126	0.0141	0.0387	255.2972
Vendor	3.1700e-003	0.1089	0.0415	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		56.9068	56.9068	1.9800e-003	8.2600e-003	59.4178
Worker	0.0167	0.0103	0.1826	5.5000e-004	0.0671	3.4000e-004	0.0674	0.0178	3.2000e-004	0.0181		55.6753	55.6753	1.1800e-003	1.1800e-003	56.0565
Total	**0.0284**	**0.5997**	**0.3634**	**3.2900e-003**	**0.1563**	**4.6400e-003**	**0.1609**	**0.0425**	**4.4300e-003**	**0.0469**		**355.9946**	**355.9946**	**0.0173**	**0.0481**	**370.7715**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

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	0.0502	0.0310	0.5478	1.6500e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		167.0257	167.0257	3.5300e-003	3.5400e-003	168.1695
Total	**0.0502**	**0.0310**	**0.5478**	**1.6500e-003**	**0.2012**	**1.0300e-003**	**0.2022**	**0.0534**	**9.5000e-004**	**0.0543**		**167.0257**	**167.0257**	**3.5300e-003**	**3.5400e-003**	**168.1695**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	0.0502	0.0310	0.5478	1.6500e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		167.0257	167.0257	3.5300e-003	3.5400e-003	168.1695
Total	**0.0502**	**0.0310**	**0.5478**	**1.6500e-003**	**0.2012**	**1.0300e-003**	**0.2022**	**0.0534**	**9.5000e-004**	**0.0543**		**167.0257**	**167.0257**	**3.5300e-003**	**3.5400e-003**	**168.1695**

3.6 Architectural Coating - 2025

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					
Archit. Coating	4.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**4.2013**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	2.7900e-003	1.7200e-003	0.0304	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		9.2792	9.2792	2.0000e-004	2.0000e-004	9.3428
Total	**2.7900e-003**	**1.7200e-003**	**0.0304**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**9.2792**	**9.2792**	**2.0000e-004**	**2.0000e-004**	**9.3428**

3.6 Architectural Coating - 2025

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					
Archit. Coating	4.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**4.2013**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	2.7900e-003	1.7200e-003	0.0304	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		9.2792	9.2792	2.0000e-004	2.0000e-004	9.3428
Total	**2.7900e-003**	**1.7200e-003**	**0.0304**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**9.2792**	**9.2792**	**2.0000e-004**	**2.0000e-004**	**9.3428**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5409	0.5575	5.3290	0.0122	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,245.0421	1,245.0421	0.0762	0.0512	1,262.2160
Unmitigated	0.5409	0.5575	5.3290	0.0122	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,245.0421	1,245.0421	0.0762	0.0512	1,262.2160

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	194.80	44.20	14.00	475,027	475,027
Total	194.80	44.20	14.00	475,027	475,027

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
NaturalGas Unmitigated	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575

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					
General Office Building	564.932	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Total		**6.0900e-003**	**0.0554**	**0.0465**	**3.3000e-004**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**		**66.4625**	**66.4625**	**1.2700e-003**	**1.2200e-003**	**66.8575**

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					
General Office Building	0.564932	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Total		**6.0900e-003**	**0.0554**	**0.0465**	**3.3000e-004**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**		**66.4625**	**66.4625**	**1.2700e-003**	**1.2200e-003**	**66.8575**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Unmitigated	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**0.4470**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

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	0.0508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**0.4470**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Hillside College Renovations/Addition

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	33.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	100.00	282.00
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	5.00	23.00
tblConstructionPhase	PhaseEndDate	5/14/2024	6/15/2024
tblConstructionPhase	PhaseEndDate	5/16/2024	7/31/2024
tblConstructionPhase	PhaseEndDate	10/3/2024	8/29/2025
tblConstructionPhase	PhaseEndDate	10/10/2024	9/30/2025
tblConstructionPhase	PhaseEndDate	10/17/2024	10/31/2025
tblConstructionPhase	PhaseStartDate	5/15/2024	6/16/2024
tblConstructionPhase	PhaseStartDate	5/17/2024	8/1/2024
tblConstructionPhase	PhaseStartDate	10/4/2024	8/30/2025
tblConstructionPhase	PhaseStartDate	10/11/2024	10/1/2025
tblTripsAndVMT	HaulingTripNumber	0.00	264.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.9384	9.7465	7.9700	0.0174	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	1,735.5645	1,735.5645	0.4431	0.0811	1,765.6922
2025	4.2043	6.1110	7.5220	0.0147	0.2012	0.2459	0.4209	0.0534	0.2264	0.2689	0.0000	1,458.7274	1,458.7274	0.3748	0.0483	1,482.4839
Maximum	**4.2043**	**9.7465**	**7.9700**	**0.0174**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**1,735.5645**	**1,735.5645**	**0.4431**	**0.0811**	**1,765.6922**

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					
2024	0.9384	9.7465	7.9700	0.0174	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	1,735.5645	1,735.5645	0.4431	0.0811	1,765.6922
2025	4.2043	6.1110	7.5220	0.0147	0.2012	0.2459	0.4209	0.0534	0.2264	0.2689	0.0000	1,458.7274	1,458.7274	0.3748	0.0483	1,482.4839
Maximum	**4.2043**	**9.7465**	**7.9700**	**0.0174**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**1,735.5645**	**1,735.5645**	**0.4431**	**0.0811**	**1,765.6922**

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	59.68	0.00	53.74	61.12	0.00	50.06	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Energy	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Mobile	0.5207	0.5989	5.1596	0.0116	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,187.8388	1,187.8388	0.0784	0.0532	1,205.6549
Total	**0.9738**	**0.6543**	**5.2082**	**0.0120**	**1.3223**	**0.0128**	**1.3351**	**0.3524**	**0.0122**	**0.3646**		**1,254.3057**	**1,254.3057**	**0.0797**	**0.0544**	**1,272.5170**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Energy	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Mobile	0.5207	0.5989	5.1596	0.0116	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,187.8388	1,187.8388	0.0784	0.0532	1,205.6549
Total	**0.9738**	**0.6543**	**5.2082**	**0.0120**	**1.3223**	**0.0128**	**1.3351**	**0.3524**	**0.0122**	**0.3646**		**1,254.3057**	**1,254.3057**	**0.0797**	**0.0544**	**1,272.5170**

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	5/1/2024	6/15/2024	5	33	
2	Grading	Grading	6/16/2024	7/31/2024	5	33	
3	Building Construction	Building Construction	8/1/2024	8/29/2025	5	282	
4	Paving	Paving	8/30/2025	9/30/2025	5	22	
5	Architectural Coating	Architectural Coating	10/1/2025	10/31/2025	5	23	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 30,000; Non-Residential Outdoor: 10,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40

Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	264.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	6.00	3.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0160	1.0143	0.2794	4.5100e-003	0.1399	7.3200e-003	0.1473	0.0384	7.0100e-003	0.0454		496.3820	496.3820	0.0280	0.0789	520.5899
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0475**	**1.0353**	**0.5752**	**5.4100e-003**	**0.2517**	**7.9200e-003**	**0.2596**	**0.0680**	**7.5600e-003**	**0.0756**		**586.8772**	**586.8772**	**0.0302**	**0.0811**	**611.8051**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	1.0143	0.2794	4.5100e-003	0.1399	7.3200e-003	0.1473	0.0384	7.0100e-003	0.0454		496.3820	496.3820	0.0280	0.0789	520.5899
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0475**	**1.0353**	**0.5752**	**5.4100e-003**	**0.2517**	**7.9200e-003**	**0.2596**	**0.0680**	**7.5600e-003**	**0.0756**		**586.8772**	**586.8772**	**0.0302**	**0.0811**	**611.8051**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.662 3**	**1,364.662 3**	**0.4414**		**1,375.696 2**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

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

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
Vendor	3.0900e-003	0.1148	0.0435	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		58.0698	58.0698	1.9700e-003	8.4300e-003	60.6299
Worker	0.0189	0.0126	0.1775	5.4000e-004	0.0671	3.6000e-004	0.0674	0.0178	3.3000e-004	0.0181		54.2971	54.2971	1.3200e-003	1.3400e-003	54.7291
Total	**0.0300**	**0.6345**	**0.3607**	**3.3300e-003**	**0.1563**	**4.6600e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**360.5579**	**360.5579**	**0.0173**	**0.0492**	**375.6539**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
Vendor	3.0900e-003	0.1148	0.0435	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		58.0698	58.0698	1.9700e-003	8.4300e-003	60.6299
Worker	0.0189	0.0126	0.1775	5.4000e-004	0.0671	3.6000e-004	0.0674	0.0178	3.3000e-004	0.0181		54.2971	54.2971	1.3200e-003	1.3400e-003	54.7291
Total	**0.0300**	**0.6345**	**0.3607**	**3.3300e-003**	**0.1563**	**4.6600e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**360.5579**	**360.5579**	**0.0173**	**0.0492**	**375.6539**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.9100e-003	0.5034	0.1412	2.2100e-003	0.0700	3.6700e-003	0.0736	0.0192	3.5100e-003	0.0227		243.6926	243.6926	0.0141	0.0387	255.5899
Vendor	3.0200e-003	0.1143	0.0429	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.0129	57.0129	1.9700e-003	8.2800e-003	59.5302
Worker	0.0178	0.0113	0.1654	5.2000e-004	0.0671	3.4000e-004	0.0674	0.0178	3.2000e-004	0.0181		52.4508	52.4508	1.2000e-003	1.2500e-003	52.8537
Total	**0.0287**	**0.6290**	**0.3496**	**3.2600e-003**	**0.1563**	**4.6500e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**353.1564**	**353.1564**	**0.0173**	**0.0483**	**367.9737**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.9100e-003	0.5034	0.1412	2.2100e-003	0.0700	3.6700e-003	0.0736	0.0192	3.5100e-003	0.0227		243.6926	243.6926	0.0141	0.0387	255.5899
Vendor	3.0200e-003	0.1143	0.0429	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.0129	57.0129	1.9700e-003	8.2800e-003	59.5302
Worker	0.0178	0.0113	0.1654	5.2000e-004	0.0671	3.4000e-004	0.0674	0.0178	3.2000e-004	0.0181		52.4508	52.4508	1.2000e-003	1.2500e-003	52.8537
Total	**0.0287**	**0.6290**	**0.3496**	**3.2600e-003**	**0.1563**	**4.6500e-003**	**0.1609**	**0.0425**	**4.4400e-003**	**0.0469**		**353.1564**	**353.1564**	**0.0173**	**0.0483**	**367.9737**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

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	0.0533	0.0338	0.4963	1.5600e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		157.3525	157.3525	3.5900e-003	3.7500e-003	158.5610
Total	**0.0533**	**0.0338**	**0.4963**	**1.5600e-003**	**0.2012**	**1.0300e-003**	**0.2022**	**0.0534**	**9.5000e-004**	**0.0543**		**157.3525**	**157.3525**	**3.5900e-003**	**3.7500e-003**	**158.5610**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	0.0533	0.0338	0.4963	1.5600e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		157.3525	157.3525	3.5900e-003	3.7500e-003	158.5610
Total	**0.0533**	**0.0338**	**0.4963**	**1.5600e-003**	**0.2012**	**1.0300e-003**	**0.2022**	**0.0534**	**9.5000e-004**	**0.0543**		**157.3525**	**157.3525**	**3.5900e-003**	**3.7500e-003**	**158.5610**

3.6 Architectural Coating - 2025

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					
Archit. Coating	4.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**4.2013**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	2.9600e-003	1.8800e-003	0.0276	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		8.7418	8.7418	2.0000e-004	2.1000e-004	8.8089
Total	**2.9600e-003**	**1.8800e-003**	**0.0276**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**8.7418**	**8.7418**	**2.0000e-004**	**2.1000e-004**	**8.8089**

3.6 Architectural Coating - 2025

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					
Archit. Coating	4.0304					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**4.2013**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	2.9600e-003	1.8800e-003	0.0276	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	5.0000e-005	3.0200e-003		8.7418	8.7418	2.0000e-004	2.1000e-004	8.8089
Total	**2.9600e-003**	**1.8800e-003**	**0.0276**	**9.0000e-005**	**0.0112**	**6.0000e-005**	**0.0112**	**2.9600e-003**	**5.0000e-005**	**3.0200e-003**		**8.7418**	**8.7418**	**2.0000e-004**	**2.1000e-004**	**8.8089**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5207	0.5989	5.1596	0.0116	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,187.8388	1,187.8388	0.0784	0.0532	1,205.6549
Unmitigated	0.5207	0.5989	5.1596	0.0116	1.3223	8.6000e-003	1.3309	0.3524	8.0000e-003	0.3604		1,187.8388	1,187.8388	0.0784	0.0532	1,205.6549

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	194.80	44.20	14.00	475,027	475,027
Total	194.80	44.20	14.00	475,027	475,027

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
NaturalGas Unmitigated	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575

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					
General Office Building	564.932	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Total		**6.0900e-003**	**0.0554**	**0.0465**	**3.3000e-004**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**		**66.4625**	**66.4625**	**1.2700e-003**	**1.2200e-003**	**66.8575**

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					
General Office Building	0.564932	6.0900e-003	0.0554	0.0465	3.3000e-004		4.2100e-003	4.2100e-003		4.2100e-003	4.2100e-003		66.4625	66.4625	1.2700e-003	1.2200e-003	66.8575
Total		**6.0900e-003**	**0.0554**	**0.0465**	**3.3000e-004**		**4.2100e-003**	**4.2100e-003**		**4.2100e-003**	**4.2100e-003**		**66.4625**	**66.4625**	**1.2700e-003**	**1.2200e-003**	**66.8575**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Unmitigated	0.4470	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**0.4470**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

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	0.0508					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3960					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**0.4470**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Beachside Housing

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1.00	Dwelling Unit	0.03	1,000.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblTripsAndVMT	HaulingTripNumber	0.00	198.00

tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0406	0.4368	0.4456	1.0700e-003	0.0184	0.0172	0.0356	6.1500e-003	0.0159	0.0220	0.0000	98.1281	98.1281	0.0204	5.9600e-003	100.4141
Maximum	**0.0406**	**0.4368**	**0.4456**	**1.0700e-003**	**0.0184**	**0.0172**	**0.0356**	**6.1500e-003**	**0.0159**	**0.0220**	**0.0000**	**98.1281**	**98.1281**	**0.0204**	**5.9600e-003**	**100.4141**

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					
2024	0.0406	0.4368	0.4456	1.0700e-003	0.0151	0.0172	0.0322	4.5300e-003	0.0159	0.0204	0.0000	98.1281	98.1281	0.0204	5.9600e-003	100.4140
Maximum	**0.0406**	**0.4368**	**0.4456**	**1.0700e-003**	**0.0151**	**0.0172**	**0.0322**	**4.5300e-003**	**0.0159**	**0.0204**	**0.0000**	**98.1281**	**98.1281**	**0.0204**	**5.9600e-003**	**100.4140**

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**	**18.15**	**0.00**	**9.42**	**26.34**	**0.00**	**7.36**	**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	**5-1-2024**	**7-31-2024**	0.2667	0.2667
2	**8-1-2024**	**9-30-2024**	0.1735	0.1735
		Highest	0.2667	0.2667

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	7.5100e-003	3.8000e-004	0.0167	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2210	0.3272	3.3000e-004	1.0000e-005	0.3377
Energy	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3800	1.3800	7.0000e-005	2.0000e-005	1.3876
Mobile	2.5600e-003	3.0700e-003	0.0265	6.0000e-005	6.6500e-003	4.0000e-005	6.7000e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.5744	5.5744	3.6000e-004	2.5000e-004	5.6567
Waste						0.0000	0.0000		0.0000	0.0000	0.0934	0.0000	0.0934	5.5200e-003	0.0000	0.2313
Water						0.0000	0.0000		0.0000	0.0000	0.0207	0.2314	0.2521	2.1400e-003	5.0000e-005	0.3213
Total	**0.0101**	**4.0500e-003**	**0.0434**	**8.0000e-005**	**6.6500e-003**	**1.1000e-003**	**7.7600e-003**	**1.7800e-003**	**1.1000e-003**	**2.8800e-003**	**0.2203**	**7.4067**	**7.6270**	**8.4200e-003**	**3.3000e-004**	**7.9345**

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	7.5100e-003	3.8000e-004	0.0167	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2210	0.3272	3.3000e-004	1.0000e-005	0.3377
Energy	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3800	1.3800	7.0000e-005	2.0000e-005	1.3876
Mobile	2.5600e-003	3.0700e-003	0.0265	6.0000e-005	6.6500e-003	4.0000e-005	6.7000e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.5744	5.5744	3.6000e-004	2.5000e-004	5.6567
Waste						0.0000	0.0000		0.0000	0.0000	0.0934	0.0000	0.0934	5.5200e-003	0.0000	0.2313
Water						0.0000	0.0000		0.0000	0.0000	0.0207	0.2314	0.2521	2.1400e-003	5.0000e-005	0.3213
Total	**0.0101**	**4.0500e-003**	**0.0434**	**8.0000e-005**	**6.6500e-003**	**1.1000e-003**	**7.7600e-003**	**1.7800e-003**	**1.1000e-003**	**2.8800e-003**	**0.2203**	**7.4067**	**7.6270**	**8.4200e-003**	**3.3000e-004**	**7.9345**

	ROG	**NOx**	**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	5/1/2024	5/14/2024	5	10	
2	Grading	Grading	5/15/2024	5/16/2024	5	2	
3	Building Construction	Building Construction	5/17/2024	10/3/2024	5	100	

4	Paving	Paving	10/4/2024	10/10/2024	5	5	
5	Architectural Coating	Architectural Coating	10/11/2024	10/17/2024	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 2,025; Residential Outdoor: 675; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	4	10.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	3.0800e-003	0.0274	0.0370	6.0000e-005		1.2500e-003	1.2500e-003		1.2000e-003	1.2000e-003	0.0000	5.2104	5.2104	9.4000e-004	0.0000	5.2339
Total	**3.0800e-003**	**0.0274**	**0.0370**	**6.0000e-005**	**0.0000**	**1.2500e-003**	**1.2500e-003**	**0.0000**	**1.2000e-003**	**1.2000e-003**	**0.0000**	**5.2104**	**5.2104**	**9.4000e-004**	**0.0000**	**5.2339**

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0126	3.4300e-003	6.0000e-005	1.7000e-003	9.0000e-005	1.7900e-003	4.7000e-004	9.0000e-005	5.5000e-004	0.0000	5.5689	5.5689	3.1000e-004	8.9000e-004	5.8405
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	1.5000e-004	1.1000e-004	1.5200e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4168	0.4168	1.0000e-005	1.0000e-005	0.4201
Total	**3.6000e-004**	**0.0127**	**4.9500e-003**	**6.0000e-005**	**2.2500e-003**	**9.0000e-005**	**2.3400e-003**	**6.2000e-004**	**9.0000e-005**	**7.0000e-004**	**0.0000**	**5.9857**	**5.9857**	**3.2000e-004**	**9.0000e-004**	**6.2606**

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	3.0800e-003	0.0274	0.0370	6.0000e-005		1.2500e-003	1.2500e-003		1.2000e-003	1.2000e-003	0.0000	5.2104	5.2104	9.4000e-004	0.0000	5.2339
Total	**3.0800e-003**	**0.0274**	**0.0370**	**6.0000e-005**	**0.0000**	**1.2500e-003**	**1.2500e-003**	**0.0000**	**1.2000e-003**	**1.2000e-003**	**0.0000**	**5.2104**	**5.2104**	**9.4000e-004**	**0.0000**	**5.2339**

3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0126	3.4300e-003	6.0000e-005	1.7000e-003	9.0000e-005	1.7900e-003	4.7000e-004	9.0000e-005	5.5000e-004	0.0000	5.5689	5.5689	3.1000e-004	8.9000e-004	5.8405
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	1.5000e-004	1.1000e-004	1.5200e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4168	0.4168	1.0000e-005	1.0000e-005	0.4201
Total	**3.6000e-004**	**0.0127**	**4.9500e-003**	**6.0000e-005**	**2.2500e-003**	**9.0000e-005**	**2.3400e-003**	**6.2000e-004**	**9.0000e-005**	**7.0000e-004**	**0.0000**	**5.9857**	**5.9857**	**3.2000e-004**	**9.0000e-004**	**6.2606**

3.3 Grading - 2024

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					5.3100e-003	0.0000	5.3100e-003	2.5700e-003	0.0000	2.5700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1000e-004	9.7300e-003	5.5500e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.2380	1.2380	4.0000e-004	0.0000	1.2480
Total	**9.1000e-004**	**9.7300e-003**	**5.5500e-003**	**1.0000e-005**	**5.3100e-003**	**4.0000e-004**	**5.7100e-003**	**2.5700e-003**	**3.7000e-004**	**2.9400e-003**	**0.0000**	**1.2380**	**1.2380**	**4.0000e-004**	**0.0000**	**1.2480**

3.3 Grading - 2024

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	2.0000e-005	2.0000e-005	2.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0667	0.0667	0.0000	0.0000	0.0672
Total	**2.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0667**	**0.0667**	**0.0000**	**0.0000**	**0.0672**

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					1.9700e-003	0.0000	1.9700e-003	9.5000e-004	0.0000	9.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1000e-004	9.7300e-003	5.5500e-003	1.0000e-005		4.0000e-004	4.0000e-004		3.7000e-004	3.7000e-004	0.0000	1.2380	1.2380	4.0000e-004	0.0000	1.2480
Total	**9.1000e-004**	**9.7300e-003**	**5.5500e-003**	**1.0000e-005**	**1.9700e-003**	**4.0000e-004**	**2.3700e-003**	**9.5000e-004**	**3.7000e-004**	**1.3200e-003**	**0.0000**	**1.2380**	**1.2380**	**4.0000e-004**	**0.0000**	**1.2480**

3.3 Grading - 2024

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	2.0000e-005	2.0000e-005	2.4000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0667	0.0667	0.0000	0.0000	0.0672
Total	**2.0000e-005**	**2.0000e-005**	**2.4000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0667**	**0.0667**	**0.0000**	**0.0000**	**0.0672**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0298	0.2987	0.3534	5.7000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	50.1212	50.1212	0.0162	0.0000	50.5265
Total	**0.0298**	**0.2987**	**0.3534**	**5.7000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**50.1212**	**50.1212**	**0.0162**	**0.0000**	**50.5265**

3.4 Building Construction - 2024

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	1.1700e-003	0.0719	0.0195	3.2000e-004	9.7100e-003	5.2000e-004	0.0102	2.6700e-003	4.9000e-004	3.1600e-003	0.0000	31.7259	31.7259	1.7900e-003	5.0400e-003	33.2733
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	1.5000e-004	1.1000e-004	1.5200e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4168	0.4168	1.0000e-005	1.0000e-005	0.4201
Total	**1.3200e-003**	**0.0721**	**0.0211**	**3.2000e-004**	**0.0103**	**5.2000e-004**	**0.0108**	**2.8200e-003**	**4.9000e-004**	**3.3100e-003**	**0.0000**	**32.1427**	**32.1427**	**1.8000e-003**	**5.0500e-003**	**33.6933**

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	0.0298	0.2987	0.3534	5.7000e-004		0.0141	0.0141		0.0130	0.0130	0.0000	50.1211	50.1211	0.0162	0.0000	50.5264
Total	**0.0298**	**0.2987**	**0.3534**	**5.7000e-004**		**0.0141**	**0.0141**		**0.0130**	**0.0130**	**0.0000**	**50.1211**	**50.1211**	**0.0162**	**0.0000**	**50.5264**

3.4 Building Construction - 2024

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	1.1700e-003	0.0719	0.0195	3.2000e-004	9.7100e-003	5.2000e-004	0.0102	2.6700e-003	4.9000e-004	3.1600e-003	0.0000	31.7259	31.7259	1.7900e-003	5.0400e-003	33.2733
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	1.5000e-004	1.1000e-004	1.5200e-003	0.0000	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4168	0.4168	1.0000e-005	1.0000e-005	0.4201
Total	**1.3200e-003**	**0.0721**	**0.0211**	**3.2000e-004**	**0.0103**	**5.2000e-004**	**0.0108**	**2.8200e-003**	**4.9000e-004**	**3.3100e-003**	**0.0000**	**32.1427**	**32.1427**	**1.8000e-003**	**5.0500e-003**	**33.6933**

3.5 Paving - 2024

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	1.4800e-003	0.0131	0.0176	3.0000e-005		6.1000e-004	6.1000e-004		5.7000e-004	5.7000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4800e-003**	**0.0131**	**0.0176**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

3.5 Paving - 2024

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	1.3000e-004	1.0000e-004	1.3700e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3751	0.3751	1.0000e-005	1.0000e-005	0.3781
Total	**1.3000e-004**	**1.0000e-004**	**1.3700e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3751**	**0.3751**	**1.0000e-005**	**1.0000e-005**	**0.3781**

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	1.4800e-003	0.0131	0.0176	3.0000e-005		6.1000e-004	6.1000e-004		5.7000e-004	5.7000e-004	0.0000	2.3502	2.3502	6.8000e-004	0.0000	2.3673
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.4800e-003**	**0.0131**	**0.0176**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**2.3502**	**2.3502**	**6.8000e-004**	**0.0000**	**2.3673**

3.5 Paving - 2024

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	1.3000e-004	1.0000e-004	1.3700e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3751	0.3751	1.0000e-005	1.0000e-005	0.3781
Total	**1.3000e-004**	**1.0000e-004**	**1.3700e-003**	**0.0000**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3751**	**0.3751**	**1.0000e-005**	**1.0000e-005**	**0.3781**

3.6 Architectural Coating - 2024

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					
Archit. Coating	3.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**3.5800e-003**	**3.0500e-003**	**4.5300e-003**	**1.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

3.6 Architectural Coating - 2024

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	3.1300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5000e-004	3.0500e-003	4.5300e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6392
Total	**3.5800e-003**	**3.0500e-003**	**4.5300e-003**	**1.0000e-005**		**1.5000e-004**	**1.5000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6392**

3.6 Architectural Coating - 2024

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	2.5600e-003	3.0700e-003	0.0265	6.0000e-005	6.6500e-003	4.0000e-005	6.7000e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.5744	5.5744	3.6000e-004	2.5000e-004	5.6567
Unmitigated	2.5600e-003	3.0700e-003	0.0265	6.0000e-005	6.6500e-003	4.0000e-005	6.7000e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.5744	5.5744	3.6000e-004	2.5000e-004	5.6567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5.44	4.91	4.09	17,672	17,672
Total	5.44	4.91	4.09	17,672	17,672

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

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	0.6827	0.6827	6.0000e-005	1.0000e-005	0.6862
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.6827	0.6827	6.0000e-005	1.0000e-005	0.6862
NaturalGas Mitigated	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6973	0.6973	1.0000e-005	1.0000e-005	0.7014
NaturalGas Unmitigated	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6973	0.6973	1.0000e-005	1.0000e-005	0.7014

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					
Apartments Mid Rise	13066.6	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6973	0.6973	1.0000e-005	1.0000e-005	0.7014
Total		**7.0000e-005**	**6.0000e-004**	**2.6000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.6973**	**0.6973**	**1.0000e-005**	**1.0000e-005**	**0.7014**

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					
Apartments Mid Rise	13066.6	7.0000e-005	6.0000e-004	2.6000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.6973	0.6973	1.0000e-005	1.0000e-005	0.7014
Total		**7.0000e-005**	**6.0000e-004**	**2.6000e-004**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.6973**	**0.6973**	**1.0000e-005**	**1.0000e-005**	**0.7014**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3849.35	0.6827	6.0000e-005	1.0000e-005	0.6862
Total		**0.6827**	**6.0000e-005**	**1.0000e-005**	**0.6862**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	3849.35	0.6827	6.0000e-005	1.0000e-005	0.6862
Total		**0.6827**	**6.0000e-005**	**1.0000e-005**	**0.6862**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	7.5100e-003	3.8000e-004	0.0167	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2210	0.3272	3.3000e-004	1.0000e-005	0.3377
Unmitigated	7.5100e-003	3.8000e-004	0.0167	2.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.1062	0.2210	0.3272	3.3000e-004	1.0000e-005	0.3377

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	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	3.1000e-004	1.2000e-004	0.0103	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Total	**7.5100e-003**	**3.8000e-004**	**0.0167**	**2.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.1062**	**0.2210**	**0.3272**	**3.4000e-004**	**1.0000e-005**	**0.3377**

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	3.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.2800e-003	2.6000e-004	6.3600e-003	2.0000e-005		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.1062	0.2041	0.3103	3.2000e-004	1.0000e-005	0.3204
Landscaping	3.1000e-004	1.2000e-004	0.0103	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0169	0.0169	2.0000e-005	0.0000	0.0173
Total	**7.5100e-003**	**3.8000e-004**	**0.0167**	**2.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.1062**	**0.2210**	**0.3272**	**3.4000e-004**	**1.0000e-005**	**0.3377**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2521	2.1400e-003	5.0000e-005	0.3213
Unmitigated	0.2521	2.1400e-003	5.0000e-005	0.3213

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.065154 / 0.0410754	0.2521	2.1400e-003	5.0000e-005	0.3213
Total		**0.2521**	**2.1400e-003**	**5.0000e-005**	**0.3213**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	0.065154 / 0.0410754	0.2521	2.1400e-003	5.0000e-005	0.3213
Total		**0.2521**	**2.1400e-003**	**5.0000e-005**	**0.3213**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0934	5.5200e-003	0.0000	0.2313
Unmitigated	0.0934	5.5200e-003	0.0000	0.2313

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	0.46	0.0934	5.5200e-003	0.0000	0.2313
Total		**0.0934**	**5.5200e-003**	**0.0000**	**0.2313**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	0.46	0.0934	5.5200e-003	0.0000	0.2313
Total		**0.0934**	**5.5200e-003**	**0.0000**	**0.2313**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

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

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

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

Beachside Housing

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1.00	Dwelling Unit	0.03	1,000.00	3

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2025

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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblTripsAndVMT	HaulingTripNumber	0.00	198.00

tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.4322	9.7451	8.4033	0.0241	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	2,471.9021	2,471.9021	0.4431	0.1971	2,537.6346
Maximum	**1.4322**	**9.7451**	**8.4033**	**0.0241**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**2,471.9021**	**2,471.9021**	**0.4431**	**0.1971**	**2,537.6346**

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					
2024	1.4322	9.7451	8.4033	0.0241	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	2,471.9021	2,471.9021	0.4431	0.1971	2,537.6346
Maximum	**1.4322**	**9.7451**	**8.4033**	**0.0241**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**2,471.9021**	**2,471.9021**	**0.4431**	**0.1971**	**2,537.6346**

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	61.91	0.00	57.63	62.37	0.00	54.61	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Energy	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Mobile	0.0156	0.0163	0.1564	3.6000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		36.8348	36.8348	2.2300e-003	1.5000e-003	37.3375
Total	**0.3020**	**0.0413**	**0.7488**	**1.6800e-003**	**0.0392**	**0.0774**	**0.1165**	**0.0104**	**0.0774**	**0.0878**	**9.3669**	**59.1950**	**68.5619**	**0.0304**	**2.2200e-003**	**69.9810**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Energy	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Mobile	0.0156	0.0163	0.1564	3.6000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		36.8348	36.8348	2.2300e-003	1.5000e-003	37.3375
Total	**0.3020**	**0.0413**	**0.7488**	**1.6800e-003**	**0.0392**	**0.0774**	**0.1165**	**0.0104**	**0.0774**	**0.0878**	**9.3669**	**59.1950**	**68.5619**	**0.0304**	**2.2200e-003**	**69.9810**

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	5/1/2024	5/14/2024	5	10	
2	Grading	Grading	5/15/2024	5/16/2024	5	2	
3	Building Construction	Building Construction	5/17/2024	10/3/2024	5	100	
4	Paving	Paving	10/4/2024	10/10/2024	5	5	
5	Architectural Coating	Architectural Coating	10/11/2024	10/17/2024	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 2,025; Residential Outdoor: 675; 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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

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	0.0424	2.3961	0.6818	0.0111	0.3463	0.0181	0.3644	0.0949	0.0173	0.1122		1,227.1484	1,227.1484	0.0695	0.1950	1,286.9998
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0722**	**2.4152**	**1.0085**	**0.0121**	**0.4581**	**0.0187**	**0.4768**	**0.1246**	**0.0179**	**0.1424**		**1,323.2147**	**1,323.2147**	**0.0716**	**0.1971**	**1,383.7476**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	0.0424	2.3961	0.6818	0.0111	0.3463	0.0181	0.3644	0.0949	0.0173	0.1122		1,227.148 4	1,227.148 4	0.0695	0.1950	1,286.999 8
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0722**	**2.4152**	**1.0085**	**0.0121**	**0.4581**	**0.0187**	**0.4768**	**0.1246**	**0.0179**	**0.1424**		**1,323.214 7**	**1,323.214 7**	**0.0716**	**0.1971**	**1,383.747 6**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	0.0242	1.3651	0.3884	6.3500e-003	0.1973	0.0103	0.2076	0.0541	9.8600e-003	0.0639		699.1027	699.1027	0.0396	0.1111	733.1999
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	2.9800e-003	1.9100e-003	0.0327	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.6066	9.6066	2.2000e-004	2.1000e-004	9.6748
Total	**0.0271**	**1.3670**	**0.4211**	**6.4500e-003**	**0.2085**	**0.0104**	**0.2189**	**0.0570**	**9.9200e-003**	**0.0670**		**708.7094**	**708.7094**	**0.0398**	**0.1113**	**742.8747**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	0.0242	1.3651	0.3884	6.3500e-003	0.1973	0.0103	0.2076	0.0541	9.8600e-003	0.0639		699.1027	699.1027	0.0396	0.1111	733.1999
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	2.9800e-003	1.9100e-003	0.0327	1.0000e-004	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.6066	9.6066	2.2000e-004	2.1000e-004	9.6748
Total	**0.0271**	**1.3670**	**0.4211**	**6.4500e-003**	**0.2085**	**0.0104**	**0.2189**	**0.0570**	**9.9200e-003**	**0.0670**		**708.7094**	**708.7094**	**0.0398**	**0.1113**	**742.8747**

3.5 Paving - 2024

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	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5904**	**5.2297**	**7.0314**	**0.0113**		**0.2429**	**0.2429**		**0.2269**	**0.2269**		**1,036.2393**	**1,036.2393**	**0.3019**		**1,043.7858**

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	0.0536	0.0345	0.5880	1.7100e-003	0.2012	1.0800e-003	0.2023	0.0534	9.9000e-004	0.0544		172.9194	172.9194	3.9100e-003	3.7900e-003	174.1459
Total	**0.0536**	**0.0345**	**0.5880**	**1.7100e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**9.9000e-004**	**0.0544**		**172.9194**	**172.9194**	**3.9100e-003**	**3.7900e-003**	**174.1459**

3.5 Paving - 2024

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	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5904**	**5.2297**	**7.0314**	**0.0113**		**0.2429**	**0.2429**		**0.2269**	**0.2269**	**0.0000**	**1,036.2393**	**1,036.2393**	**0.3019**		**1,043.7858**

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	0.0536	0.0345	0.5880	1.7100e-003	0.2012	1.0800e-003	0.2023	0.0534	9.9000e-004	0.0544		172.9194	172.9194	3.9100e-003	3.7900e-003	174.1459
Total	**0.0536**	**0.0345**	**0.5880**	**1.7100e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**9.9000e-004**	**0.0544**		**172.9194**	**172.9194**	**3.9100e-003**	**3.7900e-003**	**174.1459**

3.6 Architectural Coating - 2024

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					
Archit. Coating	1.2515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**1.4322**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2024

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					
Archit. Coating	1.2515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**1.4322**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0156	0.0163	0.1564	3.6000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		36.8348	36.8348	2.2300e-003	1.5000e-003	37.3375
Unmitigated	0.0156	0.0163	0.1564	3.6000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		36.8348	36.8348	2.2300e-003	1.5000e-003	37.3375

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5.44	4.91	4.09	17,672	17,672
Total	5.44	4.91	4.09	17,672	17,672

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
NaturalGas Unmitigated	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367

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					
Apartments Mid Rise	35.7989	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Total		**3.9000e-004**	**3.3000e-003**	**1.4000e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**4.2116**	**4.2116**	**8.0000e-005**	**8.0000e-005**	**4.2367**

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					
Apartments Mid Rise	0.0357989	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Total		**3.9000e-004**	**3.3000e-003**	**1.4000e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**4.2116**	**4.2116**	**8.0000e-005**	**8.0000e-005**	**4.2367**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Unmitigated	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068

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	1.7100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.4700e-003	9.5000e-004	0.0824	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1486	0.1486	1.4000e-004		0.1521
Total	**0.2860**	**0.0217**	**0.5910**	**1.3000e-003**		**0.0769**	**0.0769**		**0.0769**	**0.0769**	**9.3669**	**18.1486**	**27.5155**	**0.0281**	**6.4000e-004**	**28.4068**

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	1.7100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.4700e-003	9.5000e-004	0.0824	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1486	0.1486	1.4000e-004		0.1521
Total	**0.2860**	**0.0217**	**0.5910**	**1.3000e-003**		**0.0769**	**0.0769**		**0.0769**	**0.0769**	**9.3669**	**18.1486**	**27.5155**	**0.0281**	**6.4000e-004**	**28.4068**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Beachside Housing

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	1.00	Dwelling Unit	0.03	1,000.00	3

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblTripsAndVMT	HaulingTripNumber	0.00	198.00

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

tblTripsAndVMT	HaulingTripNumber	0.00	1,128.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	1.4322	9.7465	8.3821	0.0241	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	2,467.7280	2,467.7280	0.4431	0.1975	2,533.5623
Maximum	**1.4322**	**9.7465**	**8.3821**	**0.0241**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**2,467.7280**	**2,467.7280**	**0.4431**	**0.1975**	**2,533.5623**

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					
2024	1.4322	9.7465	8.3821	0.0241	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	2,467.7280	2,467.7280	0.4431	0.1975	2,533.5623
Maximum	**1.4322**	**9.7465**	**8.3821**	**0.0241**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**2,467.7280**	**2,467.7280**	**0.4431**	**0.1975**	**2,533.5623**

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	61.91	0.00	57.63	62.37	0.00	54.61	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Energy	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Mobile	0.0150	0.0175	0.1512	3.4000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		35.1396	35.1396	2.2900e-003	1.5600e-003	35.6609
Total	**0.3014**	**0.0425**	**0.7435**	**1.6600e-003**	**0.0392**	**0.0774**	**0.1165**	**0.0104**	**0.0774**	**0.0878**	**9.3669**	**57.4998**	**66.8667**	**0.0305**	**2.2800e-003**	**68.3044**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Energy	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Mobile	0.0150	0.0175	0.1512	3.4000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		35.1396	35.1396	2.2900e-003	1.5600e-003	35.6609
Total	**0.3014**	**0.0425**	**0.7435**	**1.6600e-003**	**0.0392**	**0.0774**	**0.1165**	**0.0104**	**0.0774**	**0.0878**	**9.3669**	**57.4998**	**66.8667**	**0.0305**	**2.2800e-003**	**68.3044**

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	5/1/2024	5/14/2024	5	10	
2	Grading	Grading	5/15/2024	5/16/2024	5	2	
3	Building Construction	Building Construction	5/17/2024	10/3/2024	5	100	
4	Paving	Paving	10/4/2024	10/10/2024	5	5	
5	Architectural Coating	Architectural Coating	10/11/2024	10/17/2024	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 2,025; Residential Outdoor: 675; 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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	198.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	1.00	0.00	1,128.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	0.0395	2.5105	0.6915	0.0112	0.3463	0.0181	0.3645	0.0949	0.0173	0.1123		1,228.545 4	1,228.545 4	0.0693	0.1952	1,288.460 1
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0711**	**2.5314**	**0.9873**	**0.0121**	**0.4581**	**0.0187**	**0.4768**	**0.1246**	**0.0179**	**0.1425**		**1,319.040 6**	**1,319.040 6**	**0.0715**	**0.1975**	**1,379.675 3**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	0.0395	2.5105	0.6915	0.0112	0.3463	0.0181	0.3645	0.0949	0.0173	0.1123		1,228.545 4	1,228.545 4	0.0693	0.1952	1,288.460 1
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0711**	**2.5314**	**0.9873**	**0.0121**	**0.4581**	**0.0187**	**0.4768**	**0.1246**	**0.0179**	**0.1425**		**1,319.040 6**	**1,319.040 6**	**0.0715**	**0.1975**	**1,379.675 3**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	0.0225	1.4302	0.3939	6.3600e-003	0.1973	0.0103	0.2076	0.0541	9.8800e-003	0.0640		699.8986	699.8986	0.0395	0.1112	734.0318
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	3.1500e-003	2.0900e-003	0.0296	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.0495	9.0495	2.2000e-004	2.2000e-004	9.1215
Total	**0.0257**	**1.4323**	**0.4235**	**6.4500e-003**	**0.2085**	**0.0104**	**0.2189**	**0.0570**	**9.9400e-003**	**0.0670**		**708.9481**	**708.9481**	**0.0397**	**0.1115**	**743.1533**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	0.0225	1.4302	0.3939	6.3600e-003	0.1973	0.0103	0.2076	0.0541	9.8800e-003	0.0640		699.8986	699.8986	0.0395	0.1112	734.0318
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	3.1500e-003	2.0900e-003	0.0296	9.0000e-005	0.0112	6.0000e-005	0.0112	2.9600e-003	6.0000e-005	3.0200e-003		9.0495	9.0495	2.2000e-004	2.2000e-004	9.1215
Total	**0.0257**	**1.4323**	**0.4235**	**6.4500e-003**	**0.2085**	**0.0104**	**0.2189**	**0.0570**	**9.9400e-003**	**0.0670**		**708.9481**	**708.9481**	**0.0397**	**0.1115**	**743.1533**

3.5 Paving - 2024

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	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269		1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5904**	**5.2297**	**7.0314**	**0.0113**		**0.2429**	**0.2429**		**0.2269**	**0.2269**		**1,036.2393**	**1,036.2393**	**0.3019**		**1,043.7858**

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	0.0568	0.0377	0.5324	1.6100e-003	0.2012	1.0800e-003	0.2023	0.0534	9.9000e-004	0.0544		162.8913	162.8913	3.9700e-003	4.0200e-003	164.1873
Total	**0.0568**	**0.0377**	**0.5324**	**1.6100e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**9.9000e-004**	**0.0544**		**162.8913**	**162.8913**	**3.9700e-003**	**4.0200e-003**	**164.1873**

3.5 Paving - 2024

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	0.5904	5.2297	7.0314	0.0113		0.2429	0.2429		0.2269	0.2269	0.0000	1,036.2393	1,036.2393	0.3019		1,043.7858
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5904**	**5.2297**	**7.0314**	**0.0113**		**0.2429**	**0.2429**		**0.2269**	**0.2269**	**0.0000**	**1,036.2393**	**1,036.2393**	**0.3019**		**1,043.7858**

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	0.0568	0.0377	0.5324	1.6100e-003	0.2012	1.0800e-003	0.2023	0.0534	9.9000e-004	0.0544		162.8913	162.8913	3.9700e-003	4.0200e-003	164.1873
Total	**0.0568**	**0.0377**	**0.5324**	**1.6100e-003**	**0.2012**	**1.0800e-003**	**0.2023**	**0.0534**	**9.9000e-004**	**0.0544**		**162.8913**	**162.8913**	**3.9700e-003**	**4.0200e-003**	**164.1873**

3.6 Architectural Coating - 2024

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					
Archit. Coating	1.2515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**1.4322**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2024

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					
Archit. Coating	1.2515					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**1.4322**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0150	0.0175	0.1512	3.4000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		35.1396	35.1396	2.2900e-003	1.5600e-003	35.6609
Unmitigated	0.0150	0.0175	0.1512	3.4000e-004	0.0392	2.5000e-004	0.0394	0.0104	2.4000e-004	0.0107		35.1396	35.1396	2.2900e-003	1.5600e-003	35.6609

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	5.44	4.91	4.09	17,672	17,672
Total	5.44	4.91	4.09	17,672	17,672

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
NaturalGas Unmitigated	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367

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					
Apartments Mid Rise	35.7989	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Total		**3.9000e-004**	**3.3000e-003**	**1.4000e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**4.2116**	**4.2116**	**8.0000e-005**	**8.0000e-005**	**4.2367**

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					
Apartments Mid Rise	0.0357989	3.9000e-004	3.3000e-003	1.4000e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004		4.2116	4.2116	8.0000e-005	8.0000e-005	4.2367
Total		**3.9000e-004**	**3.3000e-003**	**1.4000e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**		**4.2116**	**4.2116**	**8.0000e-005**	**8.0000e-005**	**4.2367**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068
Unmitigated	0.2860	0.0217	0.5910	1.3000e-003		0.0769	0.0769		0.0769	0.0769	9.3669	18.1486	27.5155	0.0281	6.4000e-004	28.4068

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	1.7100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.4700e-003	9.5000e-004	0.0824	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1486	0.1486	1.4000e-004		0.1521
Total	**0.2860**	**0.0217**	**0.5910**	**1.3000e-003**		**0.0769**	**0.0769**		**0.0769**	**0.0769**	**9.3669**	**18.1486**	**27.5155**	**0.0281**	**6.4000e-004**	**28.4068**

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	1.7100e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2620	0.0208	0.5086	1.3000e-003		0.0764	0.0764		0.0764	0.0764	9.3669	18.0000	27.3669	0.0279	6.4000e-004	28.2547
Landscaping	2.4700e-003	9.5000e-004	0.0824	0.0000		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004		0.1486	0.1486	1.4000e-004		0.1521
Total	**0.2860**	**0.0217**	**0.5910**	**1.3000e-003**		**0.0769**	**0.0769**		**0.0769**	**0.0769**	**9.3669**	**18.1486**	**27.5155**	**0.0281**	**6.4000e-004**	**28.4068**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Aquatics Center and Pool Renovation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Recreational Swimming Pool	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	17.00

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

tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	92.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.0584	0.6032	0.6425	1.3100e-003	0.0676	0.0259	0.0935	0.0296	0.0239	0.0536	0.0000	117.4613	117.4613	0.0288	3.4200e-003	119.2021
2025	0.0209	0.2067	0.2626	5.1000e-004	6.5600e-003	8.4200e-003	0.0150	1.7700e-003	7.7900e-003	9.5600e-003	0.0000	45.7514	45.7514	0.0113	1.3400e-003	46.4337
Maximum	**0.0584**	**0.6032**	**0.6425**	**1.3100e-003**	**0.0676**	**0.0259**	**0.0935**	**0.0296**	**0.0239**	**0.0536**	**0.0000**	**117.4613**	**117.4613**	**0.0288**	**3.4200e-003**	**119.2021**

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					
2024	0.0584	0.6032	0.6425	1.3100e-003	0.0342	0.0259	0.0601	0.0135	0.0239	0.0374	0.0000	117.4612	117.4612	0.0288	3.4200e-003	119.2020
2025	0.0209	0.2067	0.2626	5.1000e-004	6.5600e-003	8.4200e-003	0.0150	1.7700e-003	7.7900e-003	9.5600e-003	0.0000	45.7513	45.7513	0.0113	1.3400e-003	46.4336
Maximum	**0.0584**	**0.6032**	**0.6425**	**1.3100e-003**	**0.0342**	**0.0259**	**0.0601**	**0.0135**	**0.0239**	**0.0374**	**0.0000**	**117.4612**	**117.4612**	**0.0288**	**3.4200e-003**	**119.2020**

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**	**45.07**	**0.00**	**30.82**	**51.51**	**0.00**	**25.62**	**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	**5-1-2024**	**7-31-2024**	0.2653	0.2653
2	**8-1-2024**	**10-31-2024**	0.2373	0.2373
3	**11-1-2024**	**1-31-2025**	0.2320	0.2320
4	**2-1-2025**	**4-30-2025**	0.1537	0.1537
		Highest	0.2653	0.2653

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	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-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	0.0000
Mobile	0.1986	0.2174	1.8602	3.9900e-003	0.4370	2.9700e-003	0.4400	0.1166	2.7600e-003	0.1194	0.0000	369.3438	369.3438	0.0259	0.0174	375.1757
Waste						0.0000	0.0000		0.0000	0.0000	23.1410	0.0000	23.1410	1.3676	0.0000	57.3308
Water						0.0000	0.0000		0.0000	0.0000	0.3753	4.1599	4.5352	0.0389	9.5000e-004	5.7915
Total	**0.1986**	**0.2174**	**1.8605**	**3.9900e-003**	**0.4370**	**2.9700e-003**	**0.4400**	**0.1166**	**2.7600e-003**	**0.1194**	**23.5162**	**373.5043**	**397.0205**	**1.4324**	**0.0184**	**438.2984**

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	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-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	0.0000
Mobile	0.1986	0.2174	1.8602	3.9900e-003	0.4370	2.9700e-003	0.4400	0.1166	2.7600e-003	0.1194	0.0000	369.3438	369.3438	0.0259	0.0174	375.1757
Waste						0.0000	0.0000		0.0000	0.0000	23.1410	0.0000	23.1410	1.3676	0.0000	57.3308
Water						0.0000	0.0000		0.0000	0.0000	0.3753	4.1599	4.5352	0.0389	9.5000e-004	5.7915
Total	**0.1986**	**0.2174**	**1.8605**	**3.9900e-003**	**0.4370**	**2.9700e-003**	**0.4400**	**0.1166**	**2.7600e-003**	**0.1194**	**23.5162**	**373.5043**	**397.0205**	**1.4324**	**0.0184**	**438.2984**

	ROG	NOx	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	5/1/2024	5/31/2024	5	23	
2	Grading	Grading	6/1/2024	6/28/2024	5	20	
3	Building Construction	Building Construction	6/29/2024	3/14/2025	5	185	

4	Paving	Paving	3/15/2025	4/7/2025	5	16	
5	Architectural Coating	Architectural Coating	4/8/2025	4/14/2025	5	17	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	4	10.00	0.00	92.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	32.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	7.0800e-003	0.0630	0.0850	1.4000e-004		2.8800e-003	2.8800e-003		2.7500e-003	2.7500e-003	0.0000	11.9838	11.9838	2.1700e-003	0.0000	12.0381
Total	**7.0800e-003**	**0.0630**	**0.0850**	**1.4000e-004**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**0.0000**	**2.7500e-003**	**2.7500e-003**	**0.0000**	**11.9838**	**11.9838**	**2.1700e-003**	**0.0000**	**12.0381**

3.2 Demolition - 2024

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	1.0000e-004	5.8700e-003	1.5900e-003	3.0000e-005	7.9000e-004	4.0000e-005	8.3000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	2.5876	2.5876	1.5000e-004	4.1000e-004	2.7138
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	3.3000e-004	2.5000e-004	3.5000e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	0.9585	0.9585	2.0000e-005	2.0000e-005	0.9662
Total	**4.3000e-004**	**6.1200e-003**	**5.0900e-003**	**4.0000e-005**	**2.0500e-003**	**5.0000e-005**	**2.1000e-003**	**5.6000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**3.5461**	**3.5461**	**1.7000e-004**	**4.3000e-004**	**3.6799**

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	7.0800e-003	0.0630	0.0850	1.4000e-004		2.8800e-003	2.8800e-003		2.7500e-003	2.7500e-003	0.0000	11.9838	11.9838	2.1700e-003	0.0000	12.0381
Total	**7.0800e-003**	**0.0630**	**0.0850**	**1.4000e-004**	**0.0000**	**2.8800e-003**	**2.8800e-003**	**0.0000**	**2.7500e-003**	**2.7500e-003**	**0.0000**	**11.9838**	**11.9838**	**2.1700e-003**	**0.0000**	**12.0381**

3.2 Demolition - 2024

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	1.0000e-004	5.8700e-003	1.5900e-003	3.0000e-005	7.9000e-004	4.0000e-005	8.3000e-004	2.2000e-004	4.0000e-005	2.6000e-004	0.0000	2.5876	2.5876	1.5000e-004	4.1000e-004	2.7138
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	3.3000e-004	2.5000e-004	3.5000e-003	1.0000e-005	1.2600e-003	1.0000e-005	1.2700e-003	3.4000e-004	1.0000e-005	3.4000e-004	0.0000	0.9585	0.9585	2.0000e-005	2.0000e-005	0.9662
Total	**4.3000e-004**	**6.1200e-003**	**5.0900e-003**	**4.0000e-005**	**2.0500e-003**	**5.0000e-005**	**2.1000e-003**	**5.6000e-004**	**5.0000e-005**	**6.0000e-004**	**0.0000**	**3.5461**	**3.5461**	**1.7000e-004**	**4.3000e-004**	**3.6799**

3.3 Grading - 2024

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					0.0531	0.0000	0.0531	0.0257	0.0000	0.0257	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1300e-003	0.0973	0.0555	1.4000e-004		4.0000e-003	4.0000e-003		3.6800e-003	3.6800e-003	0.0000	12.3800	12.3800	4.0000e-003	0.0000	12.4801
Total	**9.1300e-003**	**0.0973**	**0.0555**	**1.4000e-004**	**0.0531**	**4.0000e-003**	**0.0571**	**0.0257**	**3.6800e-003**	**0.0294**	**0.0000**	**12.3800**	**12.3800**	**4.0000e-003**	**0.0000**	**12.4801**

3.3 Grading - 2024

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	2.3000e-004	1.7000e-004	2.4300e-003	1.0000e-005	8.8000e-004	0.0000	8.8000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6668	0.6668	2.0000e-005	2.0000e-005	0.6721
Total	**2.3000e-004**	**1.7000e-004**	**2.4300e-003**	**1.0000e-005**	**8.8000e-004**	**0.0000**	**8.8000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6668**	**0.6668**	**2.0000e-005**	**2.0000e-005**	**0.6721**

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					0.0197	0.0000	0.0197	9.5200e-003	0.0000	9.5200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1300e-003	0.0973	0.0555	1.4000e-004		4.0000e-003	4.0000e-003		3.6800e-003	3.6800e-003	0.0000	12.3800	12.3800	4.0000e-003	0.0000	12.4801
Total	**9.1300e-003**	**0.0973**	**0.0555**	**1.4000e-004**	**0.0197**	**4.0000e-003**	**0.0237**	**9.5200e-003**	**3.6800e-003**	**0.0132**	**0.0000**	**12.3800**	**12.3800**	**4.0000e-003**	**0.0000**	**12.4801**

3.3 Grading - 2024

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	2.3000e-004	1.7000e-004	2.4300e-003	1.0000e-005	8.8000e-004	0.0000	8.8000e-004	2.3000e-004	0.0000	2.4000e-004	0.0000	0.6668	0.6668	2.0000e-005	2.0000e-005	0.6721
Total	**2.3000e-004**	**1.7000e-004**	**2.4300e-003**	**1.0000e-005**	**8.8000e-004**	**0.0000**	**8.8000e-004**	**2.3000e-004**	**0.0000**	**2.4000e-004**	**0.0000**	**0.6668**	**0.6668**	**2.0000e-005**	**2.0000e-005**	**0.6721**

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0393	0.3943	0.4665	7.5000e-004		0.0186	0.0186		0.0172	0.0172	0.0000	66.1600	66.1600	0.0214	0.0000	66.6949
Total	**0.0393**	**0.3943**	**0.4665**	**7.5000e-004**		**0.0186**	**0.0186**		**0.0172**	**0.0172**	**0.0000**	**66.1600**	**66.1600**	**0.0214**	**0.0000**	**66.6949**

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.5000e-004	0.0337	9.1400e-003	1.5000e-004	4.5400e-003	2.4000e-004	4.7900e-003	1.2500e-003	2.3000e-004	1.4800e-003	0.0000	14.8504	14.8504	8.4000e-004	2.3600e-003	15.5747
Vendor	2.1000e-004	7.5800e-003	2.8200e-003	4.0000e-005	1.2500e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	3.4732	3.4732	1.2000e-004	5.0000e-004	3.6263
Worker	1.5400e-003	1.1300e-003	0.0161	5.0000e-005	5.7900e-003	3.0000e-005	5.8200e-003	1.5400e-003	3.0000e-005	1.5700e-003	0.0000	4.4009	4.4009	1.1000e-004	1.1000e-004	4.4359
Total	**2.3000e-003**	**0.0424**	**0.0280**	**2.4000e-004**	**0.0116**	**3.1000e-004**	**0.0119**	**3.1500e-003**	**3.0000e-004**	**3.4500e-003**	**0.0000**	**22.7246**	**22.7246**	**1.0700e-003**	**2.9700e-003**	**23.6370**

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	0.0393	0.3943	0.4665	7.5000e-004		0.0186	0.0186		0.0172	0.0172	0.0000	66.1599	66.1599	0.0214	0.0000	66.6949
Total	**0.0393**	**0.3943**	**0.4665**	**7.5000e-004**		**0.0186**	**0.0186**		**0.0172**	**0.0172**	**0.0000**	**66.1599**	**66.1599**	**0.0214**	**0.0000**	**66.6949**

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.5000e-004	0.0337	9.1400e-003	1.5000e-004	4.5400e-003	2.4000e-004	4.7900e-003	1.2500e-003	2.3000e-004	1.4800e-003	0.0000	14.8504	14.8504	8.4000e-004	2.3600e-003	15.5747
Vendor	2.1000e-004	7.5800e-003	2.8200e-003	4.0000e-005	1.2500e-003	4.0000e-005	1.2900e-003	3.6000e-004	4.0000e-005	4.0000e-004	0.0000	3.4732	3.4732	1.2000e-004	5.0000e-004	3.6263
Worker	1.5400e-003	1.1300e-003	0.0161	5.0000e-005	5.7900e-003	3.0000e-005	5.8200e-003	1.5400e-003	3.0000e-005	1.5700e-003	0.0000	4.4009	4.4009	1.1000e-004	1.1000e-004	4.4359
Total	**2.3000e-003**	**0.0424**	**0.0280**	**2.4000e-004**	**0.0116**	**3.1000e-004**	**0.0119**	**3.1500e-003**	**3.0000e-004**	**3.4500e-003**	**0.0000**	**22.7246**	**22.7246**	**1.0700e-003**	**2.9700e-003**	**23.6370**

3.4 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0146	0.1453	0.1863	3.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	26.5784	26.5784	8.6000e-003	0.0000	26.7933
Total	**0.0146**	**0.1453**	**0.1863**	**3.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**	**0.0000**	**26.5784**	**26.5784**	**8.6000e-003**	**0.0000**	**26.7933**

3.4 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0134	3.7100e-003	6.0000e-005	1.8200e-003	1.0000e-004	1.9200e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.8546	5.8546	3.4000e-004	9.3000e-004	6.1404
Vendor	8.0000e-005	3.0300e-003	1.1200e-003	1.0000e-005	5.0000e-004	2.0000e-005	5.2000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.3691	1.3691	5.0000e-005	2.0000e-004	1.4296
Worker	5.8000e-004	4.1000e-004	6.0100e-003	2.0000e-005	2.3300e-003	1.0000e-005	2.3400e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	1.7069	1.7069	4.0000e-005	4.0000e-005	1.7200
Total	**8.8000e-004**	**0.0169**	**0.0108**	**9.0000e-005**	**4.6500e-003**	**1.3000e-004**	**4.7800e-003**	**1.2600e-003**	**1.2000e-004**	**1.3800e-003**	**0.0000**	**8.9306**	**8.9306**	**4.3000e-004**	**1.1700e-003**	**9.2900**

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	0.0146	0.1453	0.1863	3.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	26.5783	26.5783	8.6000e-003	0.0000	26.7932
Total	**0.0146**	**0.1453**	**0.1863**	**3.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**	**0.0000**	**26.5783**	**26.5783**	**8.6000e-003**	**0.0000**	**26.7932**

3.4 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0134	3.7100e-003	6.0000e-005	1.8200e-003	1.0000e-004	1.9200e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.8546	5.8546	3.4000e-004	9.3000e-004	6.1404
Vendor	8.0000e-005	3.0300e-003	1.1200e-003	1.0000e-005	5.0000e-004	2.0000e-005	5.2000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.3691	1.3691	5.0000e-005	2.0000e-004	1.4296
Worker	5.8000e-004	4.1000e-004	6.0100e-003	2.0000e-005	2.3300e-003	1.0000e-005	2.3400e-003	6.2000e-004	1.0000e-005	6.3000e-004	0.0000	1.7069	1.7069	4.0000e-005	4.0000e-005	1.7200
Total	**8.8000e-004**	**0.0169**	**0.0108**	**9.0000e-005**	**4.6500e-003**	**1.3000e-004**	**4.7800e-003**	**1.2600e-003**	**1.2000e-004**	**1.3800e-003**	**0.0000**	**8.9306**	**8.9306**	**4.3000e-004**	**1.1700e-003**	**9.2900**

3.5 Paving - 2025

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	4.5100e-003	0.0394	0.0562	9.0000e-005		1.7500e-003	1.7500e-003		1.6400e-003	1.6400e-003	0.0000	7.5207	7.5207	2.1900e-003	0.0000	7.5755
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5100e-003**	**0.0394**	**0.0562**	**9.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.5207**	**7.5207**	**2.1900e-003**	**0.0000**	**7.5755**

3.5 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	2.0300e-003	5.6000e-004	1.0000e-005	2.8000e-004	1.0000e-005	2.9000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8837	0.8837	5.0000e-005	1.4000e-004	0.9269
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	3.9000e-004	2.8000e-004	4.0800e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1594	1.1594	3.0000e-005	3.0000e-005	1.1683
Total	**4.2000e-004**	**2.3100e-003**	**4.6400e-003**	**2.0000e-005**	**1.8600e-003**	**2.0000e-005**	**1.8800e-003**	**5.0000e-004**	**2.0000e-005**	**5.2000e-004**	**0.0000**	**2.0431**	**2.0431**	**8.0000e-005**	**1.7000e-004**	**2.0952**

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	4.5100e-003	0.0394	0.0562	9.0000e-005		1.7500e-003	1.7500e-003		1.6400e-003	1.6400e-003	0.0000	7.5207	7.5207	2.1900e-003	0.0000	7.5755
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.5100e-003**	**0.0394**	**0.0562**	**9.0000e-005**		**1.7500e-003**	**1.7500e-003**		**1.6400e-003**	**1.6400e-003**	**0.0000**	**7.5207**	**7.5207**	**2.1900e-003**	**0.0000**	**7.5755**

3.5 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	2.0300e-003	5.6000e-004	1.0000e-005	2.8000e-004	1.0000e-005	2.9000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8837	0.8837	5.0000e-005	1.4000e-004	0.9269
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	3.9000e-004	2.8000e-004	4.0800e-003	1.0000e-005	1.5800e-003	1.0000e-005	1.5900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	1.1594	1.1594	3.0000e-005	3.0000e-005	1.1683
Total	**4.2000e-004**	**2.3100e-003**	**4.6400e-003**	**2.0000e-005**	**1.8600e-003**	**2.0000e-005**	**1.8800e-003**	**5.0000e-004**	**2.0000e-005**	**5.2000e-004**	**0.0000**	**2.0431**	**2.0431**	**8.0000e-005**	**1.7000e-004**	**2.0952**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**4.3000e-004**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

3.6 Architectural Coating - 2025

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-005	1.0000e-005	1.4000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0403	0.0403	0.0000	0.0000	0.0406
Total	**1.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0403**	**0.0403**	**0.0000**	**0.0000**	**0.0406**

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3000e-004	2.8600e-003	4.5200e-003	1.0000e-005		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	0.6383	0.6383	3.0000e-005	0.0000	0.6392
Total	**4.3000e-004**	**2.8600e-003**	**4.5200e-003**	**1.0000e-005**		**1.3000e-004**	**1.3000e-004**		**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.6383**	**0.6383**	**3.0000e-005**	**0.0000**	**0.6392**

3.6 Architectural Coating - 2025

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-005	1.0000e-005	1.4000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0403	0.0403	0.0000	0.0000	0.0406
Total	**1.0000e-005**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**5.0000e-005**	**0.0000**	**6.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0403**	**0.0403**	**0.0000**	**0.0000**	**0.0406**

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	0.1986	0.2174	1.8602	3.9900e-003	0.4370	2.9700e-003	0.4400	0.1166	2.7600e-003	0.1194	0.0000	369.3438	369.3438	0.0259	0.0174	375.1757
Unmitigated	0.1986	0.2174	1.8602	3.9900e-003	0.4370	2.9700e-003	0.4400	0.1166	2.7600e-003	0.1194	0.0000	369.3438	369.3438	0.0259	0.0174	375.1757

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Recreational Swimming Pool	576.40	182.00	272.00	1,160,696	1,160,696
Total	576.40	182.00	272.00	1,160,696	1,160,696

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

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

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					
Recreational Swimming Pool	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					
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Recreational Swimming Pool	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			
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Total		**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	tons/yr										MT/yr					
Mitigated	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Unmitigated	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**2.0000e-005**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	2.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.3000e-004
Total	**2.0000e-005**	**0.0000**	**2.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**5.0000e-004**	**5.0000e-004**	**0.0000**	**0.0000**	**5.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.5352	0.0389	9.5000e-004	5.7915
Unmitigated	4.5352	0.0389	9.5000e-004	5.7915

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	1.18286 / 0.72498	4.5352	0.0389	9.5000e-004	5.7915
Total		**4.5352**	**0.0389**	**9.5000e-004**	**5.7915**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Recreational Swimming Pool	1.18286 / 0.72498	4.5352	0.0389	9.5000e-004	5.7915
Total		**4.5352**	**0.0389**	**9.5000e-004**	**5.7915**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23.1410	1.3676	0.0000	57.3308
Unmitigated	23.1410	1.3676	0.0000	57.3308

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Recreational Swimming Pool	114	23.1410	1.3676	0.0000	57.3308
Total		**23.1410**	**1.3676**	**0.0000**	**57.3308**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Recreational Swimming Pool	114	23.1410	1.3676	0.0000	57.3308
Total		**23.1410**	**1.3676**	**0.0000**	**57.3308**

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

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

Aquatics Center and Pool Renovation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Recreational Swimming Pool	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	17.00

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

tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	10.00	23.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	5.00	16.00
tblTripsAndVMT	HaulingTripNumber	0.00	92.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.9370	9.7451	7.8593	0.0152	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	1,492.6625	1,492.6625	0.4431	0.0495	1,511.8329
2025	0.6183	6.0851	7.6432	0.0149	0.2362	0.2460	0.4577	0.0630	0.2265	0.2749	0.0000	1,480.1241	1,480.1241	0.3752	0.0485	1,503.9672
Maximum	**0.9370**	**9.7451**	**7.8593**	**0.0152**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**1,492.6625**	**1,492.6625**	**0.4431**	**0.0495**	**1,511.8329**

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					
2024	0.9370	9.7451	7.8593	0.0152	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	1,492.6625	1,492.6625	0.4431	0.0495	1,511.8329
2025	0.6183	6.0851	7.6432	0.0149	0.2362	0.2460	0.4577	0.0630	0.2265	0.2749	0.0000	1,480.1241	1,480.1241	0.3752	0.0485	1,503.9672
Maximum	**0.9370**	**9.7451**	**7.8593**	**0.0152**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**1,492.6625**	**1,492.6625**	**0.4431**	**0.0495**	**1,511.8329**

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	59.31	0.00	53.42	60.90	0.00	49.97	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
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	1.4034	1.3312	12.5263	0.0275	2.9580	0.0198	2.9778	0.7883	0.0184	0.8066		2,804.9649	2,804.9649	0.1842	0.1221	2,845.9487
Total	**1.4036**	**1.3313**	**12.5283**	**0.0275**	**2.9580**	**0.0198**	**2.9778**	**0.7883**	**0.0184**	**0.8067**		**2,804.9692**	**2,804.9692**	**0.1842**	**0.1221**	**2,845.9534**

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	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
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	1.4034	1.3312	12.5263	0.0275	2.9580	0.0198	2.9778	0.7883	0.0184	0.8066		2,804.9649	2,804.9649	0.1842	0.1221	2,845.9487
Total	**1.4036**	**1.3313**	**12.5283**	**0.0275**	**2.9580**	**0.0198**	**2.9778**	**0.7883**	**0.0184**	**0.8067**		**2,804.9692**	**2,804.9692**	**0.1842**	**0.1221**	**2,845.9534**

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	5/1/2024	5/31/2024	5	23	
2	Grading	Grading	6/1/2024	6/28/2024	5	20	
3	Building Construction	Building Construction	6/29/2024	3/14/2025	5	185	
4	Paving	Paving	3/15/2025	4/7/2025	5	16	
5	Architectural Coating	Architectural Coating	4/8/2025	4/14/2025	5	17	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	92.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	32.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0384**	**0.5032**	**0.4644**	**3.2000e-003**	**0.1818**	**4.2500e-003**	**0.1860**	**0.0488**	**4.0500e-003**	**0.0529**		**343.9751**	**343.9751**	**0.0162**	**0.0415**	**356.7477**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
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	0.0298	0.0191	0.3267	9.5000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		96.0663	96.0663	2.1700e-003	2.1000e-003	96.7477
Total	**0.0384**	**0.5032**	**0.4644**	**3.2000e-003**	**0.1818**	**4.2500e-003**	**0.1860**	**0.0488**	**4.0500e-003**	**0.0529**		**343.9751**	**343.9751**	**0.0162**	**0.0415**	**356.7477**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0238**	**0.0153**	**0.2614**	**7.6000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**76.8531**	**76.8531**	**1.7400e-003**	**1.6800e-003**	**77.3982**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
Vendor	3.2400e-003	0.1094	0.0422	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.9633	57.9633	1.9800e-003	8.4000e-003	60.5170
Worker	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0356**	**0.6088**	**0.4413**	**3.5500e-003**	**0.1786**	**4.7700e-003**	**0.1834**	**0.0484**	**4.5500e-003**	**0.0530**		**382.7251**	**382.7251**	**0.0178**	**0.0495**	**397.9151**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	8.5600e-003	0.4841	0.1377	2.2500e-003	0.0700	3.6500e-003	0.0736	0.0192	3.5000e-003	0.0227		247.9088	247.9088	0.0140	0.0394	260.0000
Vendor	3.2400e-003	0.1094	0.0422	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.9633	57.9633	1.9800e-003	8.4000e-003	60.5170
Worker	0.0238	0.0153	0.2614	7.6000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		76.8531	76.8531	1.7400e-003	1.6800e-003	77.3982
Total	**0.0356**	**0.6088**	**0.4413**	**3.5500e-003**	**0.1786**	**4.7700e-003**	**0.1834**	**0.0484**	**4.5500e-003**	**0.0530**		**382.7251**	**382.7251**	**0.0178**	**0.0495**	**397.9151**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.4800e-003	0.4805	0.1393	2.2100e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		243.4126	243.4126	0.0141	0.0387	255.2972
Vendor	3.1700e-003	0.1089	0.0415	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		56.9068	56.9068	1.9800e-003	8.2600e-003	59.4178
Worker	0.0223	0.0138	0.2435	7.3000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		74.2337	74.2337	1.5700e-003	1.5700e-003	74.7420
Total	**0.0340**	**0.6031**	**0.4243**	**3.4700e-003**	**0.1786**	**4.7600e-003**	**0.1834**	**0.0484**	**4.5300e-003**	**0.0530**		**374.5530**	**374.5530**	**0.0177**	**0.0485**	**389.4570**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.4800e-003	0.4805	0.1393	2.2100e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		243.4126	243.4126	0.0141	0.0387	255.2972
Vendor	3.1700e-003	0.1089	0.0415	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		56.9068	56.9068	1.9800e-003	8.2600e-003	59.4178
Worker	0.0223	0.0138	0.2435	7.3000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		74.2337	74.2337	1.5700e-003	1.5700e-003	74.7420
Total	**0.0340**	**0.6031**	**0.4243**	**3.4700e-003**	**0.1786**	**4.7600e-003**	**0.1834**	**0.0484**	**4.5300e-003**	**0.0530**		**374.5530**	**374.5530**	**0.0177**	**0.0485**	**389.4570**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2400e-003	0.2402	0.0697	1.1000e-003	0.0350	1.8300e-003	0.0368	9.5900e-003	1.7500e-003	0.0113		121.7063	121.7063	7.0600e-003	0.0194	127.6486
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	0.0502	0.0310	0.5478	1.6500e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		167.0257	167.0257	3.5300e-003	3.5400e-003	168.1695
Total	**0.0545**	**0.2712**	**0.6174**	**2.7500e-003**	**0.2362**	**2.8600e-003**	**0.2390**	**0.0630**	**2.7000e-003**	**0.0657**		**288.7320**	**288.7320**	**0.0106**	**0.0229**	**295.8181**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.2400e-003	0.2402	0.0697	1.1000e-003	0.0350	1.8300e-003	0.0368	9.5900e-003	1.7500e-003	0.0113		121.7063	121.7063	7.0600e-003	0.0194	127.6486
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	0.0502	0.0310	0.5478	1.6500e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		167.0257	167.0257	3.5300e-003	3.5400e-003	168.1695
Total	**0.0545**	**0.2712**	**0.6174**	**2.7500e-003**	**0.2362**	**2.8600e-003**	**0.2390**	**0.0630**	**2.7000e-003**	**0.0657**		**288.7320**	**288.7320**	**0.0106**	**0.0229**	**295.8181**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**0.1709**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	5.5800e-003	3.4400e-003	0.0609	1.8000e-004	0.0224	1.1000e-004	0.0225	5.9300e-003	1.1000e-004	6.0300e-003		18.5584	18.5584	3.9000e-004	3.9000e-004	18.6855
Total	**5.5800e-003**	**3.4400e-003**	**0.0609**	**1.8000e-004**	**0.0224**	**1.1000e-004**	**0.0225**	**5.9300e-003**	**1.1000e-004**	**6.0300e-003**		**18.5584**	**18.5584**	**3.9000e-004**	**3.9000e-004**	**18.6855**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**0.1709**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	5.5800e-003	3.4400e-003	0.0609	1.8000e-004	0.0224	1.1000e-004	0.0225	5.9300e-003	1.1000e-004	6.0300e-003		18.5584	18.5584	3.9000e-004	3.9000e-004	18.6855
Total	**5.5800e-003**	**3.4400e-003**	**0.0609**	**1.8000e-004**	**0.0224**	**1.1000e-004**	**0.0225**	**5.9300e-003**	**1.1000e-004**	**6.0300e-003**		**18.5584**	**18.5584**	**3.9000e-004**	**3.9000e-004**	**18.6855**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4034	1.3312	12.5263	0.0275	2.9580	0.0198	2.9778	0.7883	0.0184	0.8066		2,804.9649	2,804.9649	0.1842	0.1221	2,845.9487
Unmitigated	1.4034	1.3312	12.5263	0.0275	2.9580	0.0198	2.9778	0.7883	0.0184	0.8066		2,804.9649	2,804.9649	0.1842	0.1221	2,845.9487

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Recreational Swimming Pool	576.40	182.00	272.00	1,160,696	1,160,696
Total	576.40	182.00	272.00	1,160,696	1,160,696

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Recreational Swimming Pool	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**

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					
Recreational Swimming Pool	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	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Unmitigated	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**1.9000e-004**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**1.9000e-004**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Aquatics Center and Pool Renovation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Recreational Swimming Pool	20.00	1000sqft	0.46	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2025
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	23.00

tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	5.00	16.00
tblConstructionPhase	NumDays	5.00	17.00
tblConstructionPhase	PhaseEndDate	5/14/2024	5/31/2024
tblConstructionPhase	PhaseEndDate	5/16/2024	6/28/2024
tblConstructionPhase	PhaseEndDate	10/3/2024	3/14/2025
tblConstructionPhase	PhaseEndDate	10/10/2024	4/7/2025
tblConstructionPhase	PhaseEndDate	10/17/2024	4/14/2025
tblConstructionPhase	PhaseStartDate	5/15/2024	6/1/2024
tblConstructionPhase	PhaseStartDate	5/17/2024	6/29/2024
tblConstructionPhase	PhaseStartDate	10/4/2024	3/15/2025
tblConstructionPhase	PhaseStartDate	10/11/2024	4/8/2025
tblTripsAndVMT	HaulingTripNumber	0.00	92.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	32.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	0.9384	9.7465	7.8303	0.0152	5.4014	0.4006	5.8019	2.5923	0.3685	2.9608	0.0000	1,487.3735	1,487.3735	0.4431	0.0497	1,507.8147
2025	0.6211	6.1147	7.5926	0.0149	0.2362	0.2460	0.4577	0.0630	0.2265	0.2749	0.0000	1,476.2110	1,476.2110	0.3752	0.0487	1,500.1018
Maximum	**0.9384**	**9.7465**	**7.8303**	**0.0152**	**5.4014**	**0.4006**	**5.8019**	**2.5923**	**0.3685**	**2.9608**	**0.0000**	**1,487.3735**	**1,487.3735**	**0.4431**	**0.0497**	**1,507.8147**

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					
2024	0.9384	9.7465	7.8303	0.0152	2.0575	0.4006	2.4581	0.9754	0.3685	1.3439	0.0000	1,487.3735	1,487.3735	0.4431	0.0497	1,507.8147
2025	0.6211	6.1147	7.5926	0.0149	0.2362	0.2460	0.4577	0.0630	0.2265	0.2749	0.0000	1,476.2110	1,476.2110	0.3752	0.0487	1,500.1018
Maximum	**0.9384**	**9.7465**	**7.8303**	**0.0152**	**2.0575**	**0.4006**	**2.4581**	**0.9754**	**0.3685**	**1.3439**	**0.0000**	**1,487.3735**	**1,487.3735**	**0.4431**	**0.0497**	**1,507.8147**

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	59.31	0.00	53.42	60.90	0.00	49.97	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
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	1.3421	1.4301	12.2573	0.0263	2.9580	0.0198	2.9778	0.7883	0.0184	0.8067		2,677.2923	2,677.2923	0.1909	0.1269	2,719.8829
Total	**1.3423**	**1.4301**	**12.2593**	**0.0263**	**2.9580**	**0.0198**	**2.9778**	**0.7883**	**0.0184**	**0.8067**		**2,677.2967**	**2,677.2967**	**0.1909**	**0.1269**	**2,719.8876**

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	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
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	1.3421	1.4301	12.2573	0.0263	2.9580	0.0198	2.9778	0.7883	0.0184	0.8067		2,677.2923	2,677.2923	0.1909	0.1269	2,719.8829
Total	**1.3423**	**1.4301**	**12.2593**	**0.0263**	**2.9580**	**0.0198**	**2.9778**	**0.7883**	**0.0184**	**0.8067**		**2,677.2967**	**2,677.2967**	**0.1909**	**0.1269**	**2,719.8876**

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	5/1/2024	5/31/2024	5	23	
2	Grading	Grading	6/1/2024	6/28/2024	5	20	
3	Building Construction	Building Construction	6/29/2024	3/14/2025	5	185	
4	Paving	Paving	3/15/2025	4/7/2025	5	16	
5	Architectural Coating	Architectural Coating	4/8/2025	4/14/2025	5	17	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 15

Acres of Paving: 0

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
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

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

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	92.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	8.00	3.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	32.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392		1,148.6874	1,148.6874	0.2080		1,153.8870
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**		**1,148.6874**	**1,148.6874**	**0.2080**		**1,153.8870**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0395**	**0.5281**	**0.4355**	**3.1500e-003**	**0.1818**	**4.2600e-003**	**0.1860**	**0.0488**	**4.0500e-003**	**0.0529**		**338.6862**	**338.6862**	**0.0162**	**0.0417**	**351.5102**

3.2 Demolition - 2024

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	0.6156	5.4776	7.3949	0.0120		0.2504	0.2504		0.2392	0.2392	0.0000	1,148.687 4	1,148.687 4	0.2080		1,153.887 0
Total	**0.6156**	**5.4776**	**7.3949**	**0.0120**	**0.0000**	**0.2504**	**0.2504**	**0.0000**	**0.2392**	**0.2392**	**0.0000**	**1,148.687 4**	**1,148.687 4**	**0.2080**		**1,153.887 0**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
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	0.0316	0.0209	0.2958	9.0000e-004	0.1118	6.0000e-004	0.1124	0.0296	5.5000e-004	0.0302		90.4952	90.4952	2.2100e-003	2.2300e-003	91.2152
Total	**0.0395**	**0.5281**	**0.4355**	**3.1500e-003**	**0.1818**	**4.2600e-003**	**0.1860**	**0.0488**	**4.0500e-003**	**0.0529**		**338.6862**	**338.6862**	**0.0162**	**0.0417**	**351.5102**

3.3 Grading - 2024

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681		1,364.6623	1,364.6623	0.4414		1,375.6962
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**5.3119**	**0.4001**	**5.7120**	**2.5686**	**0.3681**	**2.9367**		**1,364.6623**	**1,364.6623**	**0.4414**		**1,375.6962**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

3.3 Grading - 2024

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.9132	9.7297	5.5468	0.0141		0.4001	0.4001		0.3681	0.3681	0.0000	1,364.662 3	1,364.662 3	0.4414		1,375.696 2
Total	**0.9132**	**9.7297**	**5.5468**	**0.0141**	**1.9681**	**0.4001**	**2.3682**	**0.9517**	**0.3681**	**1.3198**	**0.0000**	**1,364.662 3**	**1,364.662 3**	**0.4414**		**1,375.696 2**

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	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0252**	**0.0167**	**0.2366**	**7.2000e-004**	**0.0894**	**4.8000e-004**	**0.0899**	**0.0237**	**4.4000e-004**	**0.0242**		**72.3961**	**72.3961**	**1.7600e-003**	**1.7800e-003**	**72.9722**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598		1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**		**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
Vendor	3.0900e-003	0.1148	0.0435	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		58.0698	58.0698	1.9700e-003	8.4300e-003	60.6299
Worker	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0363**	**0.6387**	**0.4198**	**3.5100e-003**	**0.1786**	**4.7800e-003**	**0.1834**	**0.0484**	**4.5500e-003**	**0.0530**		**378.6569**	**378.6569**	**0.0177**	**0.0497**	**393.8970**

3.4 Building Construction - 2024

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	0.5950	5.9739	7.0675	0.0114		0.2824	0.2824		0.2598	0.2598	0.0000	1,104.9834	1,104.9834	0.3574		1,113.9177
Total	**0.5950**	**5.9739**	**7.0675**	**0.0114**		**0.2824**	**0.2824**		**0.2598**	**0.2598**	**0.0000**	**1,104.9834**	**1,104.9834**	**0.3574**		**1,113.9177**

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	7.9900e-003	0.5072	0.1397	2.2500e-003	0.0700	3.6600e-003	0.0736	0.0192	3.5000e-003	0.0227		248.1910	248.1910	0.0140	0.0394	260.2950
Vendor	3.0900e-003	0.1148	0.0435	5.4000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		58.0698	58.0698	1.9700e-003	8.4300e-003	60.6299
Worker	0.0252	0.0167	0.2366	7.2000e-004	0.0894	4.8000e-004	0.0899	0.0237	4.4000e-004	0.0242		72.3961	72.3961	1.7600e-003	1.7800e-003	72.9722
Total	**0.0363**	**0.6387**	**0.4198**	**3.5100e-003**	**0.1786**	**4.7800e-003**	**0.1834**	**0.0484**	**4.5500e-003**	**0.0530**		**378.6569**	**378.6569**	**0.0177**	**0.0497**	**393.8970**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.9100e-003	0.5034	0.1412	2.2100e-003	0.0700	3.6700e-003	0.0736	0.0192	3.5100e-003	0.0227		243.6926	243.6926	0.0141	0.0387	255.5899
Vendor	3.0200e-003	0.1143	0.0429	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.0129	57.0129	1.9700e-003	8.2800e-003	59.5302
Worker	0.0237	0.0150	0.2206	6.9000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		69.9345	69.9345	1.5900e-003	1.6700e-003	70.4716
Total	**0.0346**	**0.6328**	**0.4047**	**3.4300e-003**	**0.1786**	**4.7700e-003**	**0.1834**	**0.0484**	**4.5400e-003**	**0.0530**		**370.6400**	**370.6400**	**0.0177**	**0.0487**	**385.5916**

3.4 Building Construction - 2025

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.9100e-003	0.5034	0.1412	2.2100e-003	0.0700	3.6700e-003	0.0736	0.0192	3.5100e-003	0.0227		243.6926	243.6926	0.0141	0.0387	255.5899
Vendor	3.0200e-003	0.1143	0.0429	5.3000e-004	0.0192	6.4000e-004	0.0199	5.5300e-003	6.1000e-004	6.1400e-003		57.0129	57.0129	1.9700e-003	8.2800e-003	59.5302
Worker	0.0237	0.0150	0.2206	6.9000e-004	0.0894	4.6000e-004	0.0899	0.0237	4.2000e-004	0.0241		69.9345	69.9345	1.5900e-003	1.6700e-003	70.4716
Total	**0.0346**	**0.6328**	**0.4047**	**3.4300e-003**	**0.1786**	**4.7700e-003**	**0.1834**	**0.0484**	**4.5400e-003**	**0.0530**		**370.6400**	**370.6400**	**0.0177**	**0.0487**	**385.5916**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	3.9500e-003	0.2517	0.0706	1.1100e-003	0.0350	1.8300e-003	0.0368	9.5900e-003	1.7500e-003	0.0113		121.8463	121.8463	7.0500e-003	0.0194	127.7949
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	0.0533	0.0338	0.4963	1.5600e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		157.3525	157.3525	3.5900e-003	3.7500e-003	158.5610
Total	**0.0573**	**0.2856**	**0.5669**	**2.6700e-003**	**0.2362**	**2.8600e-003**	**0.2391**	**0.0630**	**2.7000e-003**	**0.0657**		**279.1988**	**279.1988**	**0.0106**	**0.0231**	**286.3559**

3.5 Paving - 2025

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

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	3.9500e-003	0.2517	0.0706	1.1100e-003	0.0350	1.8300e-003	0.0368	9.5900e-003	1.7500e-003	0.0113		121.8463	121.8463	7.0500e-003	0.0194	127.7949
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	0.0533	0.0338	0.4963	1.5600e-003	0.2012	1.0300e-003	0.2022	0.0534	9.5000e-004	0.0543		157.3525	157.3525	3.5900e-003	3.7500e-003	158.5610
Total	**0.0573**	**0.2856**	**0.5669**	**2.6700e-003**	**0.2362**	**2.8600e-003**	**0.2391**	**0.0630**	**2.7000e-003**	**0.0657**		**279.1988**	**279.1988**	**0.0106**	**0.0231**	**286.3559**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**0.1709**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	5.9300e-003	3.7600e-003	0.0551	1.7000e-004	0.0224	1.1000e-004	0.0225	5.9300e-003	1.1000e-004	6.0300e-003		17.4836	17.4836	4.0000e-004	4.2000e-004	17.6179
Total	**5.9300e-003**	**3.7600e-003**	**0.0551**	**1.7000e-004**	**0.0224**	**1.1000e-004**	**0.0225**	**5.9300e-003**	**1.1000e-004**	**6.0300e-003**		**17.4836**	**17.4836**	**4.0000e-004**	**4.2000e-004**	**17.6179**

3.6 Architectural Coating - 2025

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					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**0.1709**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	5.9300e-003	3.7600e-003	0.0551	1.7000e-004	0.0224	1.1000e-004	0.0225	5.9300e-003	1.1000e-004	6.0300e-003		17.4836	17.4836	4.0000e-004	4.2000e-004	17.6179
Total	**5.9300e-003**	**3.7600e-003**	**0.0551**	**1.7000e-004**	**0.0224**	**1.1000e-004**	**0.0225**	**5.9300e-003**	**1.1000e-004**	**6.0300e-003**		**17.4836**	**17.4836**	**4.0000e-004**	**4.2000e-004**	**17.6179**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3421	1.4301	12.2573	0.0263	2.9580	0.0198	2.9778	0.7883	0.0184	0.8067		2,677.292 3	2,677.292 3	0.1909	0.1269	2,719.882 9
Unmitigated	1.3421	1.4301	12.2573	0.0263	2.9580	0.0198	2.9778	0.7883	0.0184	0.8067		2,677.292 3	2,677.292 3	0.1909	0.1269	2,719.882 9

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Recreational Swimming Pool	576.40	182.00	272.00	1,160,696	1,160,696
Total	576.40	182.00	272.00	1,160,696	1,160,696

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
Recreational Swimming Pool	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Recreational Swimming Pool	0.541709	0.062136	0.185590	0.128486	0.023783	0.006533	0.012157	0.009216	0.000814	0.000497	0.024669	0.000753	0.003657

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Recreational Swimming Pool	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**

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					
Recreational Swimming Pool	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	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Unmitigated	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**1.9000e-004**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

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	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.9000e-004	2.0000e-005	2.0400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6600e-003
Total	**1.9000e-004**	**2.0000e-005**	**2.0400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**4.3800e-003**	**4.3800e-003**	**1.0000e-005**		**4.6600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

College of the Arts Replacement Building

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	114.10	1000sqft	2.62	114,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2029
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	348.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	10.00	43.00
tblTripsAndVMT	HaulingTripNumber	104.00	645.00
tblTripsAndVMT	HaulingTripNumber	0.00	748.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,132.00
tblTripsAndVMT	HaulingTripNumber	0.00	387.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.1287	1.2499	1.1937	2.9700e-003	0.2145	0.0446	0.2591	0.0899	0.0420	0.1319	0.0000	264.5365	264.5365	0.0454	0.0116	269.1289
2028	0.2095	1.8056	2.0117	4.6600e-003	0.0885	0.0629	0.1514	0.0240	0.0602	0.0842	0.0000	406.5039	406.5039	0.0555	0.0163	412.7492
2029	0.2864	0.2086	0.3077	5.8000e-004	8.5200e-003	8.8300e-003	0.0174	2.2900e-003	8.2400e-003	0.0105	0.0000	52.1007	52.1007	0.0116	1.6400e-003	52.8788
Maximum	**0.2864**	**1.8056**	**2.0117**	**4.6600e-003**	**0.2145**	**0.0629**	**0.2591**	**0.0899**	**0.0602**	**0.1319**	**0.0000**	**406.5039**	**406.5039**	**0.0555**	**0.0163**	**412.7492**

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					
2027	0.1287	1.2499	1.1937	2.9700e-003	0.1093	0.0446	0.1539	0.0414	0.0420	0.0834	0.0000	264.5363	264.5363	0.0454	0.0116	269.1287
2028	0.2095	1.8056	2.0117	4.6600e-003	0.0885	0.0629	0.1514	0.0240	0.0602	0.0842	0.0000	406.5036	406.5036	0.0555	0.0163	412.7489
2029	0.2864	0.2086	0.3077	5.8000e-004	8.5200e-003	8.8300e-003	0.0174	2.2900e-003	8.2400e-003	0.0105	0.0000	52.1006	52.1006	0.0116	1.6400e-003	52.8787
Maximum	**0.2864**	**1.8056**	**2.0117**	**4.6600e-003**	**0.1093**	**0.0629**	**0.1539**	**0.0414**	**0.0602**	**0.0842**	**0.0000**	**406.5036**	**406.5036**	**0.0555**	**0.0163**	**412.7489**

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	33.77	0.00	24.59	41.72	0.00	21.39	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	5-1-2027	7-31-2027	0.5242	0.5242
2	8-1-2027	10-31-2027	0.5109	0.5109
3	11-1-2027	1-31-2028	0.5099	0.5099
4	2-1-2028	4-30-2028	0.4972	0.4972
5	5-1-2028	7-31-2028	0.5063	0.5063
6	8-1-2028	10-31-2028	0.5073	0.5073
7	11-1-2028	1-31-2029	0.4372	0.4372
8	2-1-2029	4-30-2029	0.3910	0.3910
		Highest	0.5242	0.5242

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	0.4653	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003
Energy	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	329.1085	329.1085	0.0206	4.2500e-003	330.8920
Mobile	0.4292	0.4803	4.3559	0.0100	1.2298	6.7000e-003	1.2365	0.3282	6.2400e-003	0.3345	0.0000	927.5232	927.5232	0.0599	0.0409	941.2180
Waste						0.0000	0.0000		0.0000	0.0000	1.7599	0.0000	1.7599	0.1040	0.0000	4.3602
Water						0.0000	0.0000		0.0000	0.0000	17.7987	129.5523	147.3510	1.8390	0.0445	206.5849
Total	**0.9056**	**0.5808**	**4.4418**	**0.0106**	**1.2298**	**0.0143**	**1.2442**	**0.3282**	**0.0139**	**0.3421**	**19.5586**	**1,386.1868**	**1,405.7454**	**2.0236**	**0.0897**	**1,483.0581**

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	0.4653	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003
Energy	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	329.1085	329.1085	0.0206	4.2500e-003	330.8920
Mobile	0.4292	0.4803	4.3559	0.0100	1.2298	6.7000e-003	1.2365	0.3282	6.2400e-003	0.3345	0.0000	927.5232	927.5232	0.0599	0.0409	941.2180
Waste						0.0000	0.0000		0.0000	0.0000	1.7599	0.0000	1.7599	0.1040	0.0000	4.3602
Water						0.0000	0.0000		0.0000	0.0000	17.7987	129.5523	147.3510	1.8390	0.0445	206.5849
Total	**0.9056**	**0.5808**	**4.4418**	**0.0106**	**1.2298**	**0.0143**	**1.2442**	**0.3282**	**0.0139**	**0.3421**	**19.5586**	**1,386.1868**	**1,405.7454**	**2.0236**	**0.0897**	**1,483.0581**

	ROG	**NOx**	**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	5/1/2027	6/30/2027	5	43	
2	Grading	Grading	7/1/2027	8/31/2027	5	44	
3	Building Construction	Building Construction	9/1/2027	12/29/2028	5	348	

4	Paving	Paving	12/30/2028	2/28/2029	5	43	
5	Architectural Coating	Architectural Coating	3/1/2029	4/30/2029	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 171,150; Non-Residential Outdoor: 57,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	645.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	748.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	19.00	3,132.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	387.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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					0.0113	0.0000	0.0113	1.7100e-003	0.0000	1.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3634	45.3634	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**0.0113**	**0.0117**	**0.0230**	**1.7100e-003**	**0.0109**	**0.0127**	**0.0000**	**45.3634**	**45.3634**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2027

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	6.5000e-004	0.0399	0.0115	1.7000e-004	5.5500e-003	2.9000e-004	5.8400e-003	1.5200e-003	2.8000e-004	1.8000e-003	0.0000	17.1077	17.1077	1.0400e-003	2.7200e-003	17.9446
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	6.8000e-004	4.5000e-004	7.0300e-003	2.0000e-005	3.0700e-003	1.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1200	2.1200	4.0000e-005	5.0000e-005	2.1354
Total	**1.3300e-003**	**0.0404**	**0.0185**	**1.9000e-004**	**8.6200e-003**	**3.0000e-004**	**8.9200e-003**	**2.3300e-003**	**2.9000e-004**	**2.6300e-003**	**0.0000**	**19.2277**	**19.2277**	**1.0800e-003**	**2.7700e-003**	**20.0800**

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					4.1800e-003	0.0000	4.1800e-003	6.3000e-004	0.0000	6.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0288	0.2775	0.2866	5.2000e-004		0.0117	0.0117		0.0109	0.0109	0.0000	45.3633	45.3633	0.0114	0.0000	45.6494
Total	**0.0288**	**0.2775**	**0.2866**	**5.2000e-004**	**4.1800e-003**	**0.0117**	**0.0159**	**6.3000e-004**	**0.0109**	**0.0116**	**0.0000**	**45.3633**	**45.3633**	**0.0114**	**0.0000**	**45.6494**

3.2 Demolition - 2027

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	6.5000e-004	0.0399	0.0115	1.7000e-004	5.5500e-003	2.9000e-004	5.8400e-003	1.5200e-003	2.8000e-004	1.8000e-003	0.0000	17.1077	17.1077	1.0400e-003	2.7200e-003	17.9446
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	6.8000e-004	4.5000e-004	7.0300e-003	2.0000e-005	3.0700e-003	1.0000e-005	3.0800e-003	8.1000e-004	1.0000e-005	8.3000e-004	0.0000	2.1200	2.1200	4.0000e-005	5.0000e-005	2.1354
Total	**1.3300e-003**	**0.0404**	**0.0185**	**1.9000e-004**	**8.6200e-003**	**3.0000e-004**	**8.9200e-003**	**2.3300e-003**	**2.9000e-004**	**2.6300e-003**	**0.0000**	**19.2277**	**19.2277**	**1.0800e-003**	**2.7700e-003**	**20.0800**

3.3 Grading - 2027

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					0.1558	0.0000	0.1558	0.0753	0.0000	0.0753	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8323	39.8323	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.1558**	**0.0109**	**0.1667**	**0.0753**	**0.0100**	**0.0854**	**0.0000**	**39.8323**	**39.8323**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2027

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	7.6000e-004	0.0463	0.0133	2.0000e-004	6.4400e-003	3.4000e-004	6.7700e-003	1.7700e-003	3.2000e-004	2.0900e-003	0.0000	19.8397	19.8397	1.2000e-003	3.1600e-003	20.8102
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	5.3000e-004	3.5000e-004	5.5300e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.6687	1.6687	3.0000e-005	4.0000e-005	1.6808
Total	**1.2900e-003**	**0.0467**	**0.0188**	**2.2000e-004**	**8.8500e-003**	**3.5000e-004**	**9.1900e-003**	**2.4100e-003**	**3.3000e-004**	**2.7400e-003**	**0.0000**	**21.5084**	**21.5084**	**1.2300e-003**	**3.2000e-003**	**22.4910**

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					0.0577	0.0000	0.0577	0.0279	0.0000	0.0279	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2733	0.1869	4.5000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	39.8322	39.8322	0.0129	0.0000	40.1543
Total	**0.0262**	**0.2733**	**0.1869**	**4.5000e-004**	**0.0577**	**0.0109**	**0.0686**	**0.0279**	**0.0100**	**0.0380**	**0.0000**	**39.8322**	**39.8322**	**0.0129**	**0.0000**	**40.1543**

3.3 Grading - 2027

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	7.6000e-004	0.0463	0.0133	2.0000e-004	6.4400e-003	3.4000e-004	6.7700e-003	1.7700e-003	3.2000e-004	2.0900e-003	0.0000	19.8397	19.8397	1.2000e-003	3.1600e-003	20.8102
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	5.3000e-004	3.5000e-004	5.5300e-003	2.0000e-005	2.4100e-003	1.0000e-005	2.4200e-003	6.4000e-004	1.0000e-005	6.5000e-004	0.0000	1.6687	1.6687	3.0000e-005	4.0000e-005	1.6808
Total	**1.2900e-003**	**0.0467**	**0.0188**	**2.2000e-004**	**8.8500e-003**	**3.5000e-004**	**9.1900e-003**	**2.4100e-003**	**3.3000e-004**	**2.7400e-003**	**0.0000**	**21.5084**	**21.5084**	**1.2300e-003**	**3.2000e-003**	**22.4910**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0656	0.5290	0.6163	1.1000e-003		0.0207	0.0207		0.0198	0.0198	0.0000	91.4035	91.4035	0.0168	0.0000	91.8226
Total	**0.0656**	**0.5290**	**0.6163**	**1.1000e-003**		**0.0207**	**0.0207**		**0.0198**	**0.0198**	**0.0000**	**91.4035**	**91.4035**	**0.0168**	**0.0000**	**91.8226**

3.4 Building Construction - 2027

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	8.0000e-004	0.0490	0.0141	2.1000e-004	6.8200e-003	3.6000e-004	7.1700e-003	1.8700e-003	3.4000e-004	2.2100e-003	0.0000	21.0067	21.0067	1.2700e-003	3.3400e-003	22.0343
Vendor	8.3000e-004	0.0314	0.0115	1.4000e-004	5.2700e-003	1.8000e-004	5.4500e-003	1.5200e-003	1.7000e-004	1.6900e-003	0.0000	13.8461	13.8461	5.0000e-004	2.0200e-003	14.4592
Worker	3.9500e-003	2.6000e-003	0.0410	1.3000e-004	0.0179	8.0000e-005	0.0179	4.7400e-003	8.0000e-005	4.8200e-003	0.0000	12.3484	12.3484	2.4000e-004	2.8000e-004	12.4380
Total	**5.5800e-003**	**0.0830**	**0.0665**	**4.8000e-004**	**0.0300**	**6.2000e-004**	**0.0306**	**8.1300e-003**	**5.9000e-004**	**8.7200e-003**	**0.0000**	**47.2012**	**47.2012**	**2.0100e-003**	**5.6400e-003**	**48.9315**

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	0.0656	0.5290	0.6163	1.1000e-003		0.0207	0.0207		0.0198	0.0198	0.0000	91.4034	91.4034	0.0168	0.0000	91.8225
Total	**0.0656**	**0.5290**	**0.6163**	**1.1000e-003**		**0.0207**	**0.0207**		**0.0198**	**0.0198**	**0.0000**	**91.4034**	**91.4034**	**0.0168**	**0.0000**	**91.8225**

3.4 Building Construction - 2027

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	8.0000e-004	0.0490	0.0141	2.1000e-004	6.8200e-003	3.6000e-004	7.1700e-003	1.8700e-003	3.4000e-004	2.2100e-003	0.0000	21.0067	21.0067	1.2700e-003	3.3400e-003	22.0343
Vendor	8.3000e-004	0.0314	0.0115	1.4000e-004	5.2700e-003	1.8000e-004	5.4500e-003	1.5200e-003	1.7000e-004	1.6900e-003	0.0000	13.8461	13.8461	5.0000e-004	2.0200e-003	14.4592
Worker	3.9500e-003	2.6000e-003	0.0410	1.3000e-004	0.0179	8.0000e-005	0.0179	4.7400e-003	8.0000e-005	4.8200e-003	0.0000	12.3484	12.3484	2.4000e-004	2.8000e-004	12.4380
Total	**5.5800e-003**	**0.0830**	**0.0665**	**4.8000e-004**	**0.0300**	**6.2000e-004**	**0.0306**	**8.1300e-003**	**5.9000e-004**	**8.7200e-003**	**0.0000**	**47.2012**	**47.2012**	**2.0100e-003**	**5.6400e-003**	**48.9315**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1937	1.5630	1.8209	3.2500e-003		0.0611	0.0611		0.0585	0.0585	0.0000	270.0559	270.0559	0.0495	0.0000	271.2941
Total	**0.1937**	**1.5630**	**1.8209**	**3.2500e-003**		**0.0611**	**0.0611**		**0.0585**	**0.0585**	**0.0000**	**270.0559**	**270.0559**	**0.0495**	**0.0000**	**271.2941**

3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3400e-003	0.1434	0.0420	6.1000e-004	0.0201	1.0500e-003	0.0212	5.5300e-003	1.0000e-003	6.5300e-003	0.0000	60.7821	60.7821	3.7800e-003	9.6700e-003	63.7587
Vendor	2.4100e-003	0.0921	0.0337	4.1000e-004	0.0156	5.2000e-004	0.0161	4.4900e-003	5.0000e-004	4.9900e-003	0.0000	40.1157	40.1157	1.4800e-003	5.8400e-003	41.8940
Worker	0.0111	7.0700e-003	0.1151	3.9000e-004	0.0528	2.3000e-004	0.0530	0.0140	2.1000e-004	0.0142	0.0000	35.5502	35.5502	6.7000e-004	7.9000e-004	35.8024
Total	**0.0158**	**0.2426**	**0.1908**	**1.4100e-003**	**0.0885**	**1.8000e-003**	**0.0903**	**0.0240**	**1.7100e-003**	**0.0257**	**0.0000**	**136.4480**	**136.4480**	**5.9300e-003**	**0.0163**	**141.4551**

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	0.1937	1.5630	1.8209	3.2500e-003		0.0611	0.0611		0.0585	0.0585	0.0000	270.0556	270.0556	0.0495	0.0000	271.2938
Total	**0.1937**	**1.5630**	**1.8209**	**3.2500e-003**		**0.0611**	**0.0611**		**0.0585**	**0.0585**	**0.0000**	**270.0556**	**270.0556**	**0.0495**	**0.0000**	**271.2938**

3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.3400e-003	0.1434	0.0420	6.1000e-004	0.0201	1.0500e-003	0.0212	5.5300e-003	1.0000e-003	6.5300e-003	0.0000	60.7821	60.7821	3.7800e-003	9.6700e-003	63.7587
Vendor	2.4100e-003	0.0921	0.0337	4.1000e-004	0.0156	5.2000e-004	0.0161	4.4900e-003	5.0000e-004	4.9900e-003	0.0000	40.1157	40.1157	1.4800e-003	5.8400e-003	41.8940
Worker	0.0111	7.0700e-003	0.1151	3.9000e-004	0.0528	2.3000e-004	0.0530	0.0140	2.1000e-004	0.0142	0.0000	35.5502	35.5502	6.7000e-004	7.9000e-004	35.8024
Total	**0.0158**	**0.2426**	**0.1908**	**1.4100e-003**	**0.0885**	**1.8000e-003**	**0.0903**	**0.0240**	**1.7100e-003**	**0.0257**	**0.0000**	**136.4480**	**136.4480**	**5.9300e-003**	**0.0163**	**141.4551**

3.5 Paving - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	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**

3.5 Paving - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	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**

3.5 Paving - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

3.5 Paving - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0169	0.1599	0.2510	3.8000e-004		7.5300e-003	7.5300e-003		6.9500e-003	6.9500e-003	0.0000	33.3528	33.3528	0.0106	0.0000	33.6170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0169**	**0.1599**	**0.2510**	**3.8000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9500e-003**	**6.9500e-003**	**0.0000**	**33.3528**	**33.3528**	**0.0106**	**0.0000**	**33.6170**

3.5 Paving - 2029

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0235	6.9900e-003	1.0000e-004	3.3300e-003	1.7000e-004	3.5000e-003	9.1000e-004	1.6000e-004	1.0800e-003	0.0000	9.8442	9.8442	6.3000e-004	1.5700e-003	10.3268
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	7.0000e-004	4.4000e-004	7.3700e-003	3.0000e-005	3.5400e-003	1.0000e-005	3.5500e-003	9.4000e-004	1.0000e-005	9.5000e-004	0.0000	2.3279	2.3279	4.0000e-005	5.0000e-005	2.3441
Total	**1.0800e-003**	**0.0239**	**0.0144**	**1.3000e-004**	**6.8700e-003**	**1.8000e-004**	**7.0500e-003**	**1.8500e-003**	**1.7000e-004**	**2.0300e-003**	**0.0000**	**12.1721**	**12.1721**	**6.7000e-004**	**1.6200e-003**	**12.6709**

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	0.0169	0.1599	0.2510	3.8000e-004		7.5300e-003	7.5300e-003		6.9500e-003	6.9500e-003	0.0000	33.3527	33.3527	0.0106	0.0000	33.6170
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0169**	**0.1599**	**0.2510**	**3.8000e-004**		**7.5300e-003**	**7.5300e-003**		**6.9500e-003**	**6.9500e-003**	**0.0000**	**33.3527**	**33.3527**	**0.0106**	**0.0000**	**33.6170**

3.5 Paving - 2029

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.8000e-004	0.0235	6.9900e-003	1.0000e-004	3.3300e-003	1.7000e-004	3.5000e-003	9.1000e-004	1.6000e-004	1.0800e-003	0.0000	9.8442	9.8442	6.3000e-004	1.5700e-003	10.3268
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	7.0000e-004	4.4000e-004	7.3700e-003	3.0000e-005	3.5400e-003	1.0000e-005	3.5500e-003	9.4000e-004	1.0000e-005	9.5000e-004	0.0000	2.3279	2.3279	4.0000e-005	5.0000e-005	2.3441
Total	**1.0800e-003**	**0.0239**	**0.0144**	**1.3000e-004**	**6.8700e-003**	**1.8000e-004**	**7.0500e-003**	**1.8500e-003**	**1.7000e-004**	**2.0300e-003**	**0.0000**	**12.1721**	**12.1721**	**6.7000e-004**	**1.6200e-003**	**12.6709**

3.6 Architectural Coating - 2029

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					
Archit. Coating	0.2644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	**0.2681**	**0.0246**	**0.0389**	**6.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**5.4895**	**5.4895**	**3.0000e-004**	**0.0000**	**5.4970**

3.6 Architectural Coating - 2029

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	3.3000e-004	2.0000e-004	3.4400e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.0863	1.0863	2.0000e-005	2.0000e-005	1.0939
Total	**3.3000e-004**	**2.0000e-004**	**3.4400e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.0863**	**1.0863**	**2.0000e-005**	**2.0000e-005**	**1.0939**

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					
Archit. Coating	0.2644					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6700e-003	0.0246	0.0389	6.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	5.4895	5.4895	3.0000e-004	0.0000	5.4970
Total	**0.2681**	**0.0246**	**0.0389**	**6.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.1100e-003**	**1.1100e-003**	**0.0000**	**5.4895**	**5.4895**	**3.0000e-004**	**0.0000**	**5.4970**

3.6 Architectural Coating - 2029

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	3.3000e-004	2.0000e-004	3.4400e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.0863	1.0863	2.0000e-005	2.0000e-005	1.0939
Total	**3.3000e-004**	**2.0000e-004**	**3.4400e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.0863**	**1.0863**	**2.0000e-005**	**2.0000e-005**	**1.0939**

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	0.4292	0.4803	4.3559	0.0100	1.2298	6.7000e-003	1.2365	0.3282	6.2400e-003	0.3345	0.0000	927.5232	927.5232	0.0599	0.0409	941.2180
Unmitigated	0.4292	0.4803	4.3559	0.0100	1.2298	6.7000e-003	1.2365	0.3282	6.2400e-003	0.3345	0.0000	927.5232	927.5232	0.0599	0.0409	941.2180

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	1,284.77	216.79	126.65	3,266,321	3,266,321
Total	1,284.77	216.79	126.65	3,266,321	3,266,321

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.538241	0.064314	0.187895	0.126318	0.023840	0.006817	0.012727	0.009020	0.000821	0.000475	0.025329	0.000761	0.003441

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	219.7535	219.7535	0.0186	2.2500e-003	220.8872
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	219.7535	219.7535	0.0186	2.2500e-003	220.8872
NaturalGas Mitigated	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	109.3550	109.3550	2.1000e-003	2.0000e-003	110.0049
NaturalGas Unmitigated	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	109.3550	109.3550	2.1000e-003	2.0000e-003	110.0049

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					
Research & Development	2.04924e+006	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	109.3550	109.3550	2.1000e-003	2.0000e-003	110.0049
Total		**0.0111**	**0.1005**	**0.0844**	**6.0000e-004**		**7.6300e-003**	**7.6300e-003**		**7.6300e-003**	**7.6300e-003**	**0.0000**	**109.3550**	**109.3550**	**2.1000e-003**	**2.0000e-003**	**110.0049**

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					
Research & Development	2.04924e+006	0.0111	0.1005	0.0844	6.0000e-004		7.6300e-003	7.6300e-003		7.6300e-003	7.6300e-003	0.0000	109.3550	109.3550	2.1000e-003	2.0000e-003	110.0049
Total		**0.0111**	**0.1005**	**0.0844**	**6.0000e-004**		**7.6300e-003**	**7.6300e-003**		**7.6300e-003**	**7.6300e-003**	**0.0000**	**109.3550**	**109.3550**	**2.1000e-003**	**2.0000e-003**	**110.0049**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	1.23913e+006	219.7535	0.0186	2.2500e-003	220.8872
Total		**219.7535**	**0.0186**	**2.2500e-003**	**220.8872**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	1.23913e+006	219.7535	0.0186	2.2500e-003	220.8872
Total		**219.7535**	**0.0186**	**2.2500e-003**	**220.8872**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4653	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003
Unmitigated	0.4653	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003
Total	**0.4653**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8300e-003**	**2.8300e-003**	**1.0000e-005**	**0.0000**	**3.0200e-003**

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	0.0529					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4123					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.8300e-003	2.8300e-003	1.0000e-005	0.0000	3.0200e-003
Total	**0.4653**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.8300e-003**	**2.8300e-003**	**1.0000e-005**	**0.0000**	**3.0200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	147.3510	1.8390	0.0445	206.5849
Unmitigated	147.3510	1.8390	0.0445	206.5849

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	56.1023 / 0	147.3510	1.8390	0.0445	206.5849
Total		**147.3510**	**1.8390**	**0.0445**	**206.5849**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	56.1023 / 0	147.3510	1.8390	0.0445	206.5849
Total		**147.3510**	**1.8390**	**0.0445**	**206.5849**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.7599	0.1040	0.0000	4.3602
Unmitigated	1.7599	0.1040	0.0000	4.3602

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	8.67	1.7599	0.1040	0.0000	4.3602
Total		**1.7599**	**0.1040**	**0.0000**	**4.3602**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	8.67	1.7599	0.1040	0.0000	4.3602
Total		**1.7599**	**0.1040**	**0.0000**	**4.3602**

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

College of the Arts Replacement Building

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	114.10	1000sqft	2.62	114,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2029
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	348.00
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	10.00	43.00
tblTripsAndVMT	HaulingTripNumber	104.00	645.00
tblTripsAndVMT	HaulingTripNumber	0.00	748.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,132.00
tblTripsAndVMT	HaulingTripNumber	0.00	387.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.6194	14.6866	15.5819	0.0362	7.4917	0.5595	8.0036	3.5359	0.5226	4.0074	0.0000	3,485.930 9	3,485.930 9	0.7075	0.1598	3,539.594 2
2028	1.6139	13.7939	15.5339	0.0360	0.6927	0.4838	1.1764	0.1879	0.4630	0.6508	0.0000	3,460.053 9	3,460.053 9	0.5763	0.1377	3,512.834 1
2029	12.4852	8.4904	12.3649	0.0237	0.3251	0.3589	0.6840	0.0876	0.3316	0.4193	0.0000	2,339.251 1	2,339.251 1	0.5763	0.0827	2,378.306 2
Maximum	**12.4852**	**14.6866**	**15.5819**	**0.0362**	**7.4917**	**0.5595**	**8.0036**	**3.5359**	**0.5226**	**4.0074**	**0.0000**	**3,485.930 9**	**3,485.930 9**	**0.7075**	**0.1598**	**3,539.594 2**

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					
2027	1.6194	14.6866	15.5819	0.0362	3.0332	0.5595	3.5452	1.3800	0.5226	1.8516	0.0000	3,485.930 9	3,485.930 9	0.7075	0.1598	3,539.594 2
2028	1.6139	13.7939	15.5339	0.0360	0.6927	0.4838	1.1764	0.1879	0.4630	0.6508	0.0000	3,460.053 9	3,460.053 9	0.5763	0.1377	3,512.834 1
2029	12.4852	8.4904	12.3649	0.0237	0.3251	0.3589	0.6840	0.0876	0.3316	0.4193	0.0000	2,339.251 1	2,339.251 1	0.5763	0.0827	2,378.306 2
Maximum	**12.4852**	**14.6866**	**15.5819**	**0.0362**	**3.0332**	**0.5595**	**3.5452**	**1.3800**	**0.5226**	**1.8516**	**0.0000**	**3,485.930 9**	**3,485.930 9**	**0.7075**	**0.1598**	**3,539.594 2**

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	52.39	0.00	45.20	56.56	0.00	42.46	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Energy	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Mobile	3.2993	3.2277	32.4151	0.0759	9.1473	0.0490	9.1963	2.4378	0.0456	2.4834		7,739.5901	7,739.5901	0.4721	0.3160	7,845.5726
Total	**5.9099**	**3.7782**	**32.8891**	**0.0792**	**9.1473**	**0.0909**	**9.2382**	**2.4378**	**0.0875**	**2.5253**		**8,400.1263**	**8,400.1263**	**0.4848**	**0.3282**	**8,510.0355**

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	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Energy	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Mobile	3.2993	3.2277	32.4151	0.0759	9.1473	0.0490	9.1963	2.4378	0.0456	2.4834		7,739.5901	7,739.5901	0.4721	0.3160	7,845.5726
Total	**5.9099**	**3.7782**	**32.8891**	**0.0792**	**9.1473**	**0.0909**	**9.2382**	**2.4378**	**0.0875**	**2.5253**		**8,400.1263**	**8,400.1263**	**0.4848**	**0.3282**	**8,510.0355**

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	5/1/2027	6/30/2027	5	43	
2	Grading	Grading	7/1/2027	8/31/2027	5	44	
3	Building Construction	Building Construction	9/1/2027	12/29/2028	5	348	
4	Paving	Paving	12/30/2028	2/28/2029	5	43	
5	Architectural Coating	Architectural Coating	3/1/2029	4/30/2029	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 171,150; Non-Residential Outdoor: 57,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

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

Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	645.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	748.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	19.00	3,132.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	387.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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					0.5245	0.0000	0.5245	0.0794	0.0000	0.0794			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.5245**	**0.5452**	**1.0697**	**0.0794**	**0.5091**	**0.5885**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0312	1.7622	0.5311	7.9300e-003	0.2624	0.0136	0.2759	0.0719	0.0130	0.0849		876.6864	876.6864	0.0533	0.1395	919.5738
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	0.0322	0.0186	0.3509	1.1200e-003	0.1453	6.6000e-004	0.1460	0.0385	6.1000e-004	0.0392		113.6368	113.6368	2.1200e-003	2.2900e-003	114.3726
Total	**0.0634**	**1.7808**	**0.8821**	**9.0500e-003**	**0.4077**	**0.0142**	**0.4219**	**0.1105**	**0.0136**	**0.1240**		**990.3232**	**990.3232**	**0.0554**	**0.1417**	**1,033.9464**

3.2 Demolition - 2027

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					0.1943	0.0000	0.1943	0.0294	0.0000	0.0294			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.1943**	**0.5452**	**0.7396**	**0.0294**	**0.5091**	**0.5385**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0312	1.7622	0.5311	7.9300e-003	0.2624	0.0136	0.2759	0.0719	0.0130	0.0849		876.6864	876.6864	0.0533	0.1395	919.5738
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	0.0322	0.0186	0.3509	1.1200e-003	0.1453	6.6000e-004	0.1460	0.0385	6.1000e-004	0.0392		113.6368	113.6368	2.1200e-003	2.2900e-003	114.3726
Total	**0.0634**	**1.7808**	**0.8821**	**9.0500e-003**	**0.4077**	**0.0142**	**0.4219**	**0.1105**	**0.0136**	**0.1240**		**990.3232**	**990.3232**	**0.0554**	**0.1417**	**1,033.9464**

3.3 Grading - 2027

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0354	1.9972	0.6019	8.9900e-003	0.2974	0.0154	0.3127	0.0815	0.0147	0.0962		993.5779	993.5779	0.0604	0.1580	1,042.183 6
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0601**	**2.0115**	**0.8719**	**9.8500e-003**	**0.4091**	**0.0159**	**0.4250**	**0.1111**	**0.0152**	**0.1263**		**1,080.990 8**	**1,080.990 8**	**0.0620**	**0.1598**	**1,130.162 6**

3.3 Grading - 2027

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0354	1.9972	0.6019	8.9900e-003	0.2974	0.0154	0.3127	0.0815	0.0147	0.0962		993.5779	993.5779	0.0604	0.1580	1,042.183 6
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0601**	**2.0115**	**0.8719**	**9.8500e-003**	**0.4091**	**0.0159**	**0.4250**	**0.1111**	**0.0152**	**0.1263**		**1,080.990 8**	**1,080.990 8**	**0.0620**	**0.1598**	**1,130.162 6**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0187	1.0574	0.3187	4.7600e-003	0.1574	8.1300e-003	0.1656	0.0432	7.7800e-003	0.0509		526.0118	526.0118	0.0320	0.0837	551.7443
Vendor	0.0193	0.6797	0.2572	3.2100e-003	0.1217	4.0100e-003	0.1257	0.0350	3.8400e-003	0.0389		346.6014	346.6014	0.0126	0.0504	361.9392
Worker	0.0917	0.0529	0.9988	3.2000e-003	0.4136	1.8800e-003	0.4155	0.1097	1.7300e-003	0.1114		323.4279	323.4279	6.0200e-003	6.5200e-003	325.5221
Total	**0.1297**	**1.7899**	**1.5747**	**0.0112**	**0.6927**	**0.0140**	**0.7067**	**0.1879**	**0.0134**	**0.2012**		**1,196.0411**	**1,196.0411**	**0.0505**	**0.1406**	**1,239.2055**

3.4 Building Construction - 2027

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0187	1.0574	0.3187	4.7600e-003	0.1574	8.1300e-003	0.1656	0.0432	7.7800e-003	0.0509		526.0118	526.0118	0.0320	0.0837	551.7443
Vendor	0.0193	0.6797	0.2572	3.2100e-003	0.1217	4.0100e-003	0.1257	0.0350	3.8400e-003	0.0389		346.6014	346.6014	0.0126	0.0504	361.9392
Worker	0.0917	0.0529	0.9988	3.2000e-003	0.4136	1.8800e-003	0.4155	0.1097	1.7300e-003	0.1114		323.4279	323.4279	6.0200e-003	6.5200e-003	325.5221
Total	**0.1297**	**1.7899**	**1.5747**	**0.0112**	**0.6927**	**0.0140**	**0.7067**	**0.1879**	**0.0134**	**0.2012**		**1,196.0411**	**1,196.0411**	**0.0505**	**0.1406**	**1,239.2055**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0186	1.0464	0.3212	4.6600e-003	0.1574	8.0700e-003	0.1655	0.0432	7.7200e-003	0.0509		515.1350	515.1350	0.0321	0.0820	540.3622
Vendor	0.0190	0.6754	0.2554	3.1500e-003	0.1217	3.9900e-003	0.1257	0.0350	3.8200e-003	0.0389		339.8767	339.8767	0.0126	0.0495	354.9348
Worker	0.0866	0.0488	0.9502	3.1200e-003	0.4136	1.7500e-003	0.4153	0.1097	1.6100e-003	0.1113		315.1523	315.1523	5.5300e-003	6.2300e-003	317.1485
Total	**0.1242**	**1.7705**	**1.5267**	**0.0109**	**0.6927**	**0.0138**	**0.7065**	**0.1879**	**0.0132**	**0.2010**		**1,170.1640**	**1,170.1640**	**0.0502**	**0.1377**	**1,212.4454**

3.4 Building Construction - 2028

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0186	1.0464	0.3212	4.6600e-003	0.1574	8.0700e-003	0.1655	0.0432	7.7200e-003	0.0509		515.1350	515.1350	0.0321	0.0820	540.3622
Vendor	0.0190	0.6754	0.2554	3.1500e-003	0.1217	3.9900e-003	0.1257	0.0350	3.8200e-003	0.0389		339.8767	339.8767	0.0126	0.0495	354.9348
Worker	0.0866	0.0488	0.9502	3.1200e-003	0.4136	1.7500e-003	0.4153	0.1097	1.6100e-003	0.1113		315.1523	315.1523	5.5300e-003	6.2300e-003	317.1485
Total	**0.1242**	**1.7705**	**1.5267**	**0.0109**	**0.6927**	**0.0138**	**0.7065**	**0.1879**	**0.0132**	**0.2010**		**1,170.1640**	**1,170.1640**	**0.0502**	**0.1377**	**1,212.4454**

3.5 Paving - 2028

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**		**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0186	1.0464	0.3212	4.6600e-003	0.1574	8.0700e-003	0.1655	0.0432	7.7200e-003	0.0509		515.1350	515.1350	0.0321	0.0820	540.3622
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	0.0351	0.0198	0.3852	1.2600e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		127.7645	127.7645	2.2400e-003	2.5300e-003	128.5737
Total	**0.0537**	**1.0661**	**0.7064**	**5.9200e-003**	**0.3251**	**8.7800e-003**	**0.3339**	**0.0876**	**8.3700e-003**	**0.0960**		**642.8995**	**642.8995**	**0.0343**	**0.0845**	**668.9359**

College of the Arts Replacement Building - South Coast AQMD Air District, Summer

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

3.5 Paving - 2028

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**	**0.0000**	**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0186	1.0464	0.3212	4.6600e-003	0.1574	8.0700e-003	0.1655	0.0432	7.7200e-003	0.0509		515.1350	515.1350	0.0321	0.0820	540.3622
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	0.0351	0.0198	0.3852	1.2600e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		127.7645	127.7645	2.2400e-003	2.5300e-003	128.5737
Total	**0.0537**	**1.0661**	**0.7064**	**5.9200e-003**	**0.3251**	**8.7800e-003**	**0.3339**	**0.0876**	**8.3700e-003**	**0.0960**		**642.8995**	**642.8995**	**0.0343**	**0.0845**	**668.9359**

3.5 Paving - 2029

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**		**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0184	1.0350	0.3234	4.5600e-003	0.1574	8.0000e-003	0.1654	0.0432	7.6600e-003	0.0508		504.4631	504.4631	0.0322	0.0803	529.1942
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	0.0331	0.0183	0.3678	1.2300e-003	0.1677	6.6000e-004	0.1683	0.0445	6.1000e-004	0.0451		124.7813	124.7813	2.0700e-003	2.4300e-003	125.5563
Total	**0.0516**	**1.0533**	**0.6912**	**5.7900e-003**	**0.3251**	**8.6600e-003**	**0.3338**	**0.0876**	**8.2700e-003**	**0.0959**		**629.2444**	**629.2444**	**0.0343**	**0.0827**	**654.7506**

3.5 Paving - 2029

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**	**0.0000**	**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0184	1.0350	0.3234	4.5600e-003	0.1574	8.0000e-003	0.1654	0.0432	7.6600e-003	0.0508		504.4631	504.4631	0.0322	0.0803	529.1942
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	0.0331	0.0183	0.3678	1.2300e-003	0.1677	6.6000e-004	0.1683	0.0445	6.1000e-004	0.0451		124.7813	124.7813	2.0700e-003	2.4300e-003	125.5563
Total	**0.0516**	**1.0533**	**0.6912**	**5.7900e-003**	**0.3251**	**8.6600e-003**	**0.3338**	**0.0876**	**8.2700e-003**	**0.0959**		**629.2444**	**629.2444**	**0.0343**	**0.0827**	**654.7506**

3.6 Architectural Coating - 2029

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					
Archit. Coating	12.2989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**12.4698**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0155	8.5400e-003	0.1716	5.8000e-004	0.0782	3.1000e-004	0.0786	0.0208	2.8000e-004	0.0210		58.2313	58.2313	9.7000e-004	1.1300e-003	58.5930
Total	**0.0155**	**8.5400e-003**	**0.1716**	**5.8000e-004**	**0.0782**	**3.1000e-004**	**0.0786**	**0.0208**	**2.8000e-004**	**0.0210**		**58.2313**	**58.2313**	**9.7000e-004**	**1.1300e-003**	**58.5930**

3.6 Architectural Coating - 2029

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					
Archit. Coating	12.2989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**12.4698**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0155	8.5400e-003	0.1716	5.8000e-004	0.0782	3.1000e-004	0.0786	0.0208	2.8000e-004	0.0210		58.2313	58.2313	9.7000e-004	1.1300e-003	58.5930
Total	**0.0155**	**8.5400e-003**	**0.1716**	**5.8000e-004**	**0.0782**	**3.1000e-004**	**0.0786**	**0.0208**	**2.8000e-004**	**0.0210**		**58.2313**	**58.2313**	**9.7000e-004**	**1.1300e-003**	**58.5930**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2993	3.2277	32.4151	0.0759	9.1473	0.0490	9.1963	2.4378	0.0456	2.4834		7,739.5901	7,739.5901	0.4721	0.3160	7,845.5726
Unmitigated	3.2993	3.2277	32.4151	0.0759	9.1473	0.0490	9.1963	2.4378	0.0456	2.4834		7,739.5901	7,739.5901	0.4721	0.3160	7,845.5726

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	1,284.77	216.79	126.65	3,266,321	3,266,321
Total	1,284.77	216.79	126.65	3,266,321	3,266,321

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.538241	0.064314	0.187895	0.126318	0.023840	0.006817	0.012727	0.009020	0.000821	0.000475	0.025329	0.000761	0.003441

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
NaturalGas Unmitigated	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363

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					
Research & Development	5614.35	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Total		**0.0606**	**0.5504**	**0.4624**	**3.3000e-003**		**0.0418**	**0.0418**		**0.0418**	**0.0418**		**660.5112**	**660.5112**	**0.0127**	**0.0121**	**664.4363**

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					
Research & Development	5.61435	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Total		**0.0606**	**0.5504**	**0.4624**	**3.3000e-003**		**0.0418**	**0.0418**		**0.0418**	**0.0418**		**660.5112**	**660.5112**	**0.0127**	**0.0121**	**664.4363**

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	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Unmitigated	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266

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	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Total	**2.5500**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0250**	**0.0250**	**6.0000e-005**		**0.0266**

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	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Total	**2.5500**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0250**	**0.0250**	**6.0000e-005**		**0.0266**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

College of the Arts Replacement Building

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	114.10	1000sqft	2.62	114,100.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2029
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	43.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	220.00	348.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	PhaseEndDate	5/28/2027	6/30/2027
tblConstructionPhase	PhaseEndDate	6/7/2027	8/31/2027
tblConstructionPhase	PhaseEndDate	4/10/2028	12/29/2028
tblConstructionPhase	PhaseEndDate	4/24/2028	2/28/2029
tblConstructionPhase	PhaseEndDate	5/8/2028	4/30/2029
tblConstructionPhase	PhaseStartDate	5/29/2027	7/1/2027
tblConstructionPhase	PhaseStartDate	6/8/2027	9/1/2027
tblConstructionPhase	PhaseStartDate	4/11/2028	12/30/2028
tblConstructionPhase	PhaseStartDate	4/25/2028	3/1/2029
tblTripsAndVMT	HaulingTripNumber	104.00	645.00
tblTripsAndVMT	HaulingTripNumber	0.00	748.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,132.00
tblTripsAndVMT	HaulingTripNumber	0.00	387.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	1.6234	14.7728	15.5014	0.0360	7.4917	0.5595	8.0037	3.5359	0.5227	4.0075	0.0000	3,468.5049	3,468.5049	0.7074	0.1601	3,522.3520
2028	1.6178	13.8823	15.4581	0.0358	0.6927	0.4838	1.1765	0.1879	0.4630	0.6509	0.0000	3,443.0939	3,443.0939	0.5763	0.1383	3,496.0511
2029	12.4864	8.5419	12.3350	0.0236	0.3251	0.3589	0.6840	0.0876	0.3317	0.4193	0.0000	2,332.6339	2,332.6339	0.5762	0.0830	2,371.7598
Maximum	**12.4864**	**14.7728**	**15.5014**	**0.0360**	**7.4917**	**0.5595**	**8.0037**	**3.5359**	**0.5227**	**4.0075**	**0.0000**	**3,468.5049**	**3,468.5049**	**0.7074**	**0.1601**	**3,522.3520**

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					
2027	1.6234	14.7728	15.5014	0.0360	3.0332	0.5595	3.5452	1.3800	0.5227	1.8516	0.0000	3,468.5049	3,468.5049	0.7074	0.1601	3,522.3519
2028	1.6178	13.8823	15.4581	0.0358	0.6927	0.4838	1.1765	0.1879	0.4630	0.6509	0.0000	3,443.0939	3,443.0939	0.5763	0.1383	3,496.0511
2029	12.4864	8.5419	12.3350	0.0236	0.3251	0.3589	0.6840	0.0876	0.3317	0.4193	0.0000	2,332.6339	2,332.6339	0.5762	0.0830	2,371.7598
Maximum	**12.4864**	**14.7728**	**15.5014**	**0.0360**	**3.0332**	**0.5595**	**3.5452**	**1.3800**	**0.5227**	**1.8516**	**0.0000**	**3,468.5049**	**3,468.5049**	**0.7074**	**0.1601**	**3,522.3519**

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	52.39	0.00	45.20	56.56	0.00	42.46	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Energy	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Mobile	3.1760	3.4668	31.4966	0.0724	9.1473	0.0490	9.1964	2.4378	0.0456	2.4834		7,387.8623	7,387.8623	0.4842	0.3277	7,497.6172
Total	**5.7866**	**4.0174**	**31.9706**	**0.0757**	**9.1473**	**0.0909**	**9.2382**	**2.4378**	**0.0875**	**2.5253**		**8,048.3984**	**8,048.3984**	**0.4969**	**0.3398**	**8,162.0800**

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	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Energy	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Mobile	3.1760	3.4668	31.4966	0.0724	9.1473	0.0490	9.1964	2.4378	0.0456	2.4834		7,387.8623	7,387.8623	0.4842	0.3277	7,497.6172
Total	**5.7866**	**4.0174**	**31.9706**	**0.0757**	**9.1473**	**0.0909**	**9.2382**	**2.4378**	**0.0875**	**2.5253**		**8,048.3984**	**8,048.3984**	**0.4969**	**0.3398**	**8,162.0800**

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	5/1/2027	6/30/2027	5	43	
2	Grading	Grading	7/1/2027	8/31/2027	5	44	
3	Building Construction	Building Construction	9/1/2027	12/29/2028	5	348	
4	Paving	Paving	12/30/2028	2/28/2029	5	43	
5	Architectural Coating	Architectural Coating	3/1/2029	4/30/2029	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 44

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 171,150; Non-Residential Outdoor: 57,050; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Grading	Graders	1	8.00	187	0.41

Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Paving Equipment	1	8.00	132	0.36
Building Construction	Welders	3	8.00	46	0.45

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	13.00	0.00	645.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	748.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	37.00	19.00	3,132.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	387.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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					0.5245	0.0000	0.5245	0.0794	0.0000	0.0794			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.5245**	**0.5452**	**1.0697**	**0.0794**	**0.5091**	**0.5885**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0290	1.8468	0.5383	7.9400e-003	0.2624	0.0136	0.2760	0.0719	0.0130	0.0849		877.7152	877.7152	0.0531	0.1396	920.6491
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	0.0344	0.0203	0.3182	1.0600e-003	0.1453	6.6000e-004	0.1460	0.0385	6.1000e-004	0.0392		107.0641	107.0641	2.1600e-003	2.4300e-003	107.8414
Total	**0.0634**	**1.8671**	**0.8565**	**9.0000e-003**	**0.4077**	**0.0142**	**0.4219**	**0.1105**	**0.0136**	**0.1241**		**984.7793**	**984.7793**	**0.0553**	**0.1421**	**1,028.4905**

3.2 Demolition - 2027

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					0.1943	0.0000	0.1943	0.0294	0.0000	0.0294			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.1943**	**0.5452**	**0.7396**	**0.0294**	**0.5091**	**0.5385**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0290	1.8468	0.5383	7.9400e-003	0.2624	0.0136	0.2760	0.0719	0.0130	0.0849		877.7152	877.7152	0.0531	0.1396	920.6491
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	0.0344	0.0203	0.3182	1.0600e-003	0.1453	6.6000e-004	0.1460	0.0385	6.1000e-004	0.0392		107.0641	107.0641	2.1600e-003	2.4300e-003	107.8414
Total	**0.0634**	**1.8671**	**0.8565**	**9.0000e-003**	**0.4077**	**0.0142**	**0.4219**	**0.1105**	**0.0136**	**0.1241**		**984.7793**	**984.7793**	**0.0553**	**0.1421**	**1,028.4905**

3.3 Grading - 2027

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0329	2.0930	0.6101	9.0000e-003	0.2974	0.0154	0.3127	0.0815	0.0147	0.0962		994.7439	994.7439	0.0602	0.1582	1,043.402 3
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0594**	**2.1086**	**0.8548**	**9.8100e-003**	**0.4091**	**0.0159**	**0.4250**	**0.1111**	**0.0152**	**0.1263**		**1,077.100 9**	**1,077.100 9**	**0.0619**	**0.1601**	**1,126.357 3**

3.3 Grading - 2027

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0329	2.0930	0.6101	9.0000e-003	0.2974	0.0154	0.3127	0.0815	0.0147	0.0962		994.7439	994.7439	0.0602	0.1582	1,043.4023
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0594**	**2.1086**	**0.8548**	**9.8100e-003**	**0.4091**	**0.0159**	**0.4250**	**0.1111**	**0.0152**	**0.1263**		**1,077.1009**	**1,077.1009**	**0.0619**	**0.1601**	**1,126.3573**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0174	1.1081	0.3230	4.7700e-003	0.1574	8.1500e-003	0.1656	0.0432	7.8000e-003	0.0510		526.6291	526.6291	0.0319	0.0838	552.3895
Vendor	0.0183	0.7136	0.2655	3.2200e-003	0.1217	4.0300e-003	0.1257	0.0350	3.8500e-003	0.0389		347.2651	347.2651	0.0125	0.0506	362.6406
Worker	0.0979	0.0578	0.9057	3.0100e-003	0.4136	1.8800e-003	0.4155	0.1097	1.7300e-003	0.1114		304.7208	304.7208	6.1400e-003	6.9100e-003	306.9332
Total	**0.1337**	**1.8794**	**1.4942**	**0.0110**	**0.6927**	**0.0141**	**0.7067**	**0.1879**	**0.0134**	**0.2012**		**1,178.6150**	**1,178.6150**	**0.0505**	**0.1412**	**1,221.9633**

3.4 Building Construction - 2027

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0174	1.1081	0.3230	4.7700e-003	0.1574	8.1500e-003	0.1656	0.0432	7.8000e-003	0.0510		526.6291	526.6291	0.0319	0.0838	552.3895
Vendor	0.0183	0.7136	0.2655	3.2200e-003	0.1217	4.0300e-003	0.1257	0.0350	3.8500e-003	0.0389		347.2651	347.2651	0.0125	0.0506	362.6406
Worker	0.0979	0.0578	0.9057	3.0100e-003	0.4136	1.8800e-003	0.4155	0.1097	1.7300e-003	0.1114		304.7208	304.7208	6.1400e-003	6.9100e-003	306.9332
Total	**0.1337**	**1.8794**	**1.4942**	**0.0110**	**0.6927**	**0.0141**	**0.7067**	**0.1879**	**0.0134**	**0.2012**		**1,178.6150**	**1,178.6150**	**0.0505**	**0.1412**	**1,221.9633**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0173	1.0967	0.3254	4.6600e-003	0.1574	8.0900e-003	0.1655	0.0432	7.7400e-003	0.0509		515.7449	515.7449	0.0320	0.0821	540.9996
Vendor	0.0181	0.7091	0.2636	3.1500e-003	0.1217	4.0100e-003	0.1257	0.0350	3.8400e-003	0.0389		340.5344	340.5344	0.0125	0.0496	355.6294
Worker	0.0928	0.0532	0.8619	2.9400e-003	0.4136	1.7500e-003	0.4153	0.1097	1.6100e-003	0.1113		296.9248	296.9248	5.6500e-003	6.6000e-003	299.0335
Total	**0.1281**	**1.8590**	**1.4509**	**0.0108**	**0.6927**	**0.0139**	**0.7065**	**0.1879**	**0.0132**	**0.2010**		**1,153.2040**	**1,153.2040**	**0.0502**	**0.1383**	**1,195.6625**

3.4 Building Construction - 2028

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0173	1.0967	0.3254	4.6600e-003	0.1574	8.0900e-003	0.1655	0.0432	7.7400e-003	0.0509		515.7449	515.7449	0.0320	0.0821	540.9996
Vendor	0.0181	0.7091	0.2636	3.1500e-003	0.1217	4.0100e-003	0.1257	0.0350	3.8400e-003	0.0389		340.5344	340.5344	0.0125	0.0496	355.6294
Worker	0.0928	0.0532	0.8619	2.9400e-003	0.4136	1.7500e-003	0.4153	0.1097	1.6100e-003	0.1113		296.9248	296.9248	5.6500e-003	6.6000e-003	299.0335
Total	**0.1281**	**1.8590**	**1.4509**	**0.0108**	**0.6927**	**0.0139**	**0.7065**	**0.1879**	**0.0132**	**0.2010**		**1,153.2040**	**1,153.2040**	**0.0502**	**0.1383**	**1,195.6625**

3.5 Paving - 2028

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**		**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0173	1.0967	0.3254	4.6600e-003	0.1574	8.0900e-003	0.1655	0.0432	7.7400e-003	0.0509		515.7449	515.7449	0.0320	0.0821	540.9996
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	0.0376	0.0216	0.3494	1.1900e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		120.3749	120.3749	2.2900e-003	2.6800e-003	121.2298
Total	**0.0549**	**1.1183**	**0.6748**	**5.8500e-003**	**0.3251**	**8.8000e-003**	**0.3339**	**0.0876**	**8.3900e-003**	**0.0960**		**636.1198**	**636.1198**	**0.0343**	**0.0847**	**662.2294**

3.5 Paving - 2028

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**	**0.0000**	**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0173	1.0967	0.3254	4.6600e-003	0.1574	8.0900e-003	0.1655	0.0432	7.7400e-003	0.0509		515.7449	515.7449	0.0320	0.0821	540.9996
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	0.0376	0.0216	0.3494	1.1900e-003	0.1677	7.1000e-004	0.1684	0.0445	6.5000e-004	0.0451		120.3749	120.3749	2.2900e-003	2.6800e-003	121.2298
Total	**0.0549**	**1.1183**	**0.6748**	**5.8500e-003**	**0.3251**	**8.8000e-003**	**0.3339**	**0.0876**	**8.3900e-003**	**0.0960**		**636.1198**	**636.1198**	**0.0343**	**0.0847**	**662.2294**

3.5 Paving - 2029

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234		1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**		**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0171	1.0848	0.3276	4.5600e-003	0.1574	8.0200e-003	0.1654	0.0432	7.6700e-003	0.0508		505.0655	505.0655	0.0322	0.0804	529.8238
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	0.0356	0.0200	0.3337	1.1600e-003	0.1677	6.6000e-004	0.1683	0.0445	6.1000e-004	0.0451		117.5617	117.5617	2.1100e-003	2.5700e-003	118.3804
Total	**0.0527**	**1.1048**	**0.6613**	**5.7200e-003**	**0.3251**	**8.6800e-003**	**0.3338**	**0.0876**	**8.2800e-003**	**0.0959**		**622.6273**	**622.6273**	**0.0343**	**0.0830**	**648.2042**

3.5 Paving - 2029

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	0.7854	7.4371	11.6737	0.0179		0.3503	0.3503		0.3234	0.3234	0.0000	1,710.0067	1,710.0067	0.5420		1,723.5556
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.7854**	**7.4371**	**11.6737**	**0.0179**		**0.3503**	**0.3503**		**0.3234**	**0.3234**	**0.0000**	**1,710.0067**	**1,710.0067**	**0.5420**		**1,723.5556**

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	0.0171	1.0848	0.3276	4.5600e-003	0.1574	8.0200e-003	0.1654	0.0432	7.6700e-003	0.0508		505.0655	505.0655	0.0322	0.0804	529.8238
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	0.0356	0.0200	0.3337	1.1600e-003	0.1677	6.6000e-004	0.1683	0.0445	6.1000e-004	0.0451		117.5617	117.5617	2.1100e-003	2.5700e-003	118.3804
Total	**0.0527**	**1.1048**	**0.6613**	**5.7200e-003**	**0.3251**	**8.6800e-003**	**0.3338**	**0.0876**	**8.2800e-003**	**0.0959**		**622.6273**	**622.6273**	**0.0343**	**0.0830**	**648.2042**

3.6 Architectural Coating - 2029

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					
Archit. Coating	12.2989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**12.4698**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0166	9.3200e-003	0.1557	5.4000e-004	0.0782	3.1000e-004	0.0786	0.0208	2.8000e-004	0.0210		54.8621	54.8621	9.9000e-004	1.2000e-003	55.2442
Total	**0.0166**	**9.3200e-003**	**0.1557**	**5.4000e-004**	**0.0782**	**3.1000e-004**	**0.0786**	**0.0208**	**2.8000e-004**	**0.0210**		**54.8621**	**54.8621**	**9.9000e-004**	**1.2000e-003**	**55.2442**

3.6 Architectural Coating - 2029

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					
Archit. Coating	12.2989					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**12.4698**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0166	9.3200e-003	0.1557	5.4000e-004	0.0782	3.1000e-004	0.0786	0.0208	2.8000e-004	0.0210		54.8621	54.8621	9.9000e-004	1.2000e-003	55.2442
Total	**0.0166**	**9.3200e-003**	**0.1557**	**5.4000e-004**	**0.0782**	**3.1000e-004**	**0.0786**	**0.0208**	**2.8000e-004**	**0.0210**		**54.8621**	**54.8621**	**9.9000e-004**	**1.2000e-003**	**55.2442**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1760	3.4668	31.4966	0.0724	9.1473	0.0490	9.1964	2.4378	0.0456	2.4834		7,387.8623	7,387.8623	0.4842	0.3277	7,497.6172
Unmitigated	3.1760	3.4668	31.4966	0.0724	9.1473	0.0490	9.1964	2.4378	0.0456	2.4834		7,387.8623	7,387.8623	0.4842	0.3277	7,497.6172

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	1,284.77	216.79	126.65	3,266,321	3,266,321
Total	1,284.77	216.79	126.65	3,266,321	3,266,321

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
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.538241	0.064314	0.187895	0.126318	0.023840	0.006817	0.012727	0.009020	0.000821	0.000475	0.025329	0.000761	0.003441

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
NaturalGas Unmitigated	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363

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					
Research & Development	5614.35	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Total		**0.0606**	**0.5504**	**0.4624**	**3.3000e-003**		**0.0418**	**0.0418**		**0.0418**	**0.0418**		**660.5112**	**660.5112**	**0.0127**	**0.0121**	**664.4363**

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					
Research & Development	5.61435	0.0606	0.5504	0.4624	3.3000e-003		0.0418	0.0418		0.0418	0.0418		660.5112	660.5112	0.0127	0.0121	664.4363
Total		**0.0606**	**0.5504**	**0.4624**	**3.3000e-003**		**0.0418**	**0.0418**		**0.0418**	**0.0418**		**660.5112**	**660.5112**	**0.0127**	**0.0121**	**664.4363**

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	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Unmitigated	2.5500	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266

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	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Total	**2.5500**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0250**	**0.0250**	**6.0000e-005**		**0.0266**

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	0.2898					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.2592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0700e-003	1.1000e-004	0.0116	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0250	0.0250	6.0000e-005		0.0266
Total	**2.5500**	**1.1000e-004**	**0.0116**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0250**	**0.0250**	**6.0000e-005**		**0.0266**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

New 7th St Community Outreach Facility

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2031
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	347.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	6.00	45.00
tblConstructionPhase	NumDays	10.00	43.00
tblTripsAndVMT	HaulingTripNumber	217.00	792.00
tblTripsAndVMT	HaulingTripNumber	0.00	900.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,470.00
tblTripsAndVMT	HaulingTripNumber	0.00	430.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2029	0.1276	1.2632	1.1853	2.9800e-003	0.2298	0.0447	0.2746	0.0934	0.0421	0.1355	0.0000	265.9808	265.9808	0.0461	0.0122	270.7761
2030	0.1744	1.2694	1.9474	4.8900e-003	0.0814	0.0201	0.1016	0.0221	0.0200	0.0422	0.0000	423.0306	423.0306	0.0190	0.0158	428.2003
2031	0.2592	0.1736	0.3255	6.7000e-004	8.6500e-003	5.6700e-003	0.0143	2.3300e-003	5.6600e-003	7.9900e-003	0.0000	58.9689	58.9689	2.8700e-003	1.7400e-003	59.5586
Maximum	**0.2592**	**1.2694**	**1.9474**	**4.8900e-003**	**0.2298**	**0.0447**	**0.2746**	**0.0934**	**0.0421**	**0.1355**	**0.0000**	**423.0306**	**423.0306**	**0.0461**	**0.0158**	**428.2003**

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	tons/yr										MT/yr					
2029	0.1276	1.2632	1.1853	2.9800e-003	0.1147	0.0447	0.1595	0.0427	0.0421	0.0848	0.0000	265.9806	265.9806	0.0461	0.0122	270.7759
2030	0.1744	1.2694	1.9474	4.8900e-003	0.0814	0.0201	0.1016	0.0221	0.0200	0.0422	0.0000	423.0302	423.0302	0.0190	0.0158	428.1999
2031	0.2592	0.1736	0.3255	6.7000e-004	8.6500e-003	5.6700e-003	0.0143	2.3300e-003	5.6600e-003	7.9900e-003	0.0000	58.9688	58.9688	2.8700e-003	1.7400e-003	59.5585
Maximum	**0.2592**	**1.2694**	**1.9474**	**4.8900e-003**	**0.1147**	**0.0447**	**0.1595**	**0.0427**	**0.0421**	**0.0848**	**0.0000**	**423.0302**	**423.0302**	**0.0461**	**0.0158**	**428.1999**

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	35.97	0.00	29.48	43.05	0.00	27.33	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	5-1-2029	7-31-2029	0.5342	0.5342
2	8-1-2029	10-31-2029	0.5130	0.5130
3	11-1-2029	1-31-2030	0.4594	0.4594
4	2-1-2030	4-30-2030	0.3506	0.3506
5	5-1-2030	7-31-2030	0.3605	0.3605
6	8-1-2030	10-31-2030	0.3615	0.3615
7	11-1-2030	1-31-2031	0.3333	0.3333
8	2-1-2031	4-30-2031	0.3401	0.3401
		Highest	0.5342	0.5342

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	0.4078	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003
Energy	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	276.7000	276.7000	0.0198	3.2800e-003	278.1706
Mobile	0.3064	0.3313	3.0775	7.0100e-003	0.8943	4.4400e-003	0.8987	0.2387	4.1300e-003	0.2428	0.0000	648.8704	648.8704	0.0425	0.0289	658.5440
Waste						0.0000	0.0000		0.0000	0.0000	18.8782	0.0000	18.8782	1.1157	0.0000	46.7698
Water						0.0000	0.0000		0.0000	0.0000	5.6387	62.5059	68.1445	0.5844	0.0143	87.0207
Total	**0.7197**	**0.3818**	**3.1212**	**7.3100e-003**	**0.8943**	**8.2800e-003**	**0.9026**	**0.2387**	**7.9700e-003**	**0.2467**	**24.5168**	**988.0787**	**1,012.5955**	**1.7624**	**0.0465**	**1,070.5078**

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	0.4078	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003
Energy	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	276.7000	276.7000	0.0198	3.2800e-003	278.1706
Mobile	0.3064	0.3313	3.0775	7.0100e-003	0.8943	4.4400e-003	0.8987	0.2387	4.1300e-003	0.2428	0.0000	648.8704	648.8704	0.0425	0.0289	658.5440
Waste						0.0000	0.0000		0.0000	0.0000	18.8782	0.0000	18.8782	1.1157	0.0000	46.7698
Water						0.0000	0.0000		0.0000	0.0000	5.6387	62.5059	68.1445	0.5844	0.0143	87.0207
Total	**0.7197**	**0.3818**	**3.1212**	**7.3100e-003**	**0.8943**	**8.2800e-003**	**0.9026**	**0.2387**	**7.9700e-003**	**0.2467**	**24.5168**	**988.0787**	**1,012.5955**	**1.7624**	**0.0465**	**1,070.5078**

	ROG	**NOx**	**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	5/1/2029	6/30/2029	5	44	
2	Grading	Grading	7/1/2029	8/31/2029	5	45	
3	Building Construction	Building Construction	9/1/2029	12/31/2030	5	347	

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

4	Paving	Paving	1/1/2031	2/28/2031	5	43	
5	Architectural Coating	Architectural Coating	3/1/2031	4/30/2031	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 45

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	792.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	900.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	32.00	16.00	3,470.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	430.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2029

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					0.0235	0.0000	0.0235	3.5500e-003	0.0000	3.5500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0295	0.2839	0.2933	5.3000e-004		0.0120	0.0120		0.0112	0.0112	0.0000	46.4183	46.4183	0.0117	0.0000	46.7110
Total	**0.0295**	**0.2839**	**0.2933**	**5.3000e-004**	**0.0235**	**0.0120**	**0.0355**	**3.5500e-003**	**0.0112**	**0.0148**	**0.0000**	**46.4183**	**46.4183**	**0.0117**	**0.0000**	**46.7110**

3.2 Demolition - 2029

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	7.9000e-004	0.0480	0.0143	2.0000e-004	6.8200e-003	3.5000e-004	7.1700e-003	1.8700e-003	3.4000e-004	2.2100e-003	0.0000	20.1463	20.1463	1.2900e-003	3.2100e-003	21.1340
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	6.2000e-004	3.9000e-004	6.5400e-003	2.0000e-005	3.1400e-003	1.0000e-005	3.1500e-003	8.3000e-004	1.0000e-005	8.4000e-004	0.0000	2.0644	2.0644	4.0000e-005	5.0000e-005	2.0788
Total	**1.4100e-003**	**0.0484**	**0.0208**	**2.2000e-004**	**9.9600e-003**	**3.6000e-004**	**0.0103**	**2.7000e-003**	**3.5000e-004**	**3.0500e-003**	**0.0000**	**22.2107**	**22.2107**	**1.3300e-003**	**3.2600e-003**	**23.2127**

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					8.7000e-003	0.0000	8.7000e-003	1.3200e-003	0.0000	1.3200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0295	0.2839	0.2933	5.3000e-004		0.0120	0.0120		0.0112	0.0112	0.0000	46.4183	46.4183	0.0117	0.0000	46.7110
Total	**0.0295**	**0.2839**	**0.2933**	**5.3000e-004**	**8.7000e-003**	**0.0120**	**0.0207**	**1.3200e-003**	**0.0112**	**0.0125**	**0.0000**	**46.4183**	**46.4183**	**0.0117**	**0.0000**	**46.7110**

3.2 Demolition - 2029

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	7.9000e-004	0.0480	0.0143	2.0000e-004	6.8200e-003	3.5000e-004	7.1700e-003	1.8700e-003	3.4000e-004	2.2100e-003	0.0000	20.1463	20.1463	1.2900e-003	3.2100e-003	21.1340
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	6.2000e-004	3.9000e-004	6.5400e-003	2.0000e-005	3.1400e-003	1.0000e-005	3.1500e-003	8.3000e-004	1.0000e-005	8.4000e-004	0.0000	2.0644	2.0644	4.0000e-005	5.0000e-005	2.0788
Total	**1.4100e-003**	**0.0484**	**0.0208**	**2.2000e-004**	**9.9600e-003**	**3.6000e-004**	**0.0103**	**2.7000e-003**	**3.5000e-004**	**3.0500e-003**	**0.0000**	**22.2107**	**22.2107**	**1.3300e-003**	**3.2600e-003**	**23.2127**

3.3 Grading - 2029

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					0.1594	0.0000	0.1594	0.0771	0.0000	0.0771	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.2796	0.1911	4.6000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	40.7375	40.7375	0.0132	0.0000	41.0669
Total	**0.0268**	**0.2796**	**0.1911**	**4.6000e-004**	**0.1594**	**0.0112**	**0.1705**	**0.0771**	**0.0103**	**0.0873**	**0.0000**	**40.7375**	**40.7375**	**0.0132**	**0.0000**	**41.0669**

3.3 Grading - 2029

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	8.9000e-004	0.0545	0.0163	2.3000e-004	7.7400e-003	4.0000e-004	8.1500e-003	2.1300e-003	3.8000e-004	2.5100e-003	0.0000	22.8935	22.8935	1.4600e-003	3.6400e-003	24.0159
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	4.9000e-004	3.1000e-004	5.1400e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.6000e-004	0.0000	1.6241	1.6241	3.0000e-005	4.0000e-005	1.6354
Total	**1.3800e-003**	**0.0549**	**0.0214**	**2.5000e-004**	**0.0102**	**4.1000e-004**	**0.0106**	**2.7900e-003**	**3.9000e-004**	**3.1700e-003**	**0.0000**	**24.5176**	**24.5176**	**1.4900e-003**	**3.6800e-003**	**25.6512**

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					0.0590	0.0000	0.0590	0.0286	0.0000	0.0286	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0268	0.2796	0.1911	4.6000e-004		0.0112	0.0112		0.0103	0.0103	0.0000	40.7375	40.7375	0.0132	0.0000	41.0669
Total	**0.0268**	**0.2796**	**0.1911**	**4.6000e-004**	**0.0590**	**0.0112**	**0.0702**	**0.0286**	**0.0103**	**0.0388**	**0.0000**	**40.7375**	**40.7375**	**0.0132**	**0.0000**	**41.0669**

3.3 Grading - 2029

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	8.9000e-004	0.0545	0.0163	2.3000e-004	7.7400e-003	4.0000e-004	8.1500e-003	2.1300e-003	3.8000e-004	2.5100e-003	0.0000	22.8935	22.8935	1.4600e-003	3.6400e-003	24.0159
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	4.9000e-004	3.1000e-004	5.1400e-003	2.0000e-005	2.4700e-003	1.0000e-005	2.4800e-003	6.6000e-004	1.0000e-005	6.6000e-004	0.0000	1.6241	1.6241	3.0000e-005	4.0000e-005	1.6354
Total	**1.3800e-003**	**0.0549**	**0.0214**	**2.5000e-004**	**0.0102**	**4.1000e-004**	**0.0106**	**2.7900e-003**	**3.9000e-004**	**3.1700e-003**	**0.0000**	**24.5176**	**24.5176**	**1.4900e-003**	**3.6800e-003**	**25.6512**

3.4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0641	0.5170	0.6023	1.0800e-003		0.0202	0.0202		0.0193	0.0193	0.0000	89.3262	89.3262	0.0164	0.0000	89.7357
Total	**0.0641**	**0.5170**	**0.6023**	**1.0800e-003**		**0.0202**	**0.0202**		**0.0193**	**0.0193**	**0.0000**	**89.3262**	**89.3262**	**0.0164**	**0.0000**	**89.7357**

3.4 Building Construction - 2029

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	8.5000e-004	0.0521	0.0155	2.2000e-004	7.4000e-003	3.8000e-004	7.7800e-003	2.0300e-003	3.7000e-004	2.4000e-003	0.0000	21.8760	21.8760	1.4000e-003	3.4800e-003	22.9485
Vendor	6.6000e-004	0.0255	9.3300e-003	1.1000e-004	4.3400e-003	1.4000e-004	4.4800e-003	1.2500e-003	1.4000e-004	1.3900e-003	0.0000	10.9622	10.9622	4.1000e-004	1.6000e-003	11.4487
Worker	2.9800e-003	1.8700e-003	0.0315	1.1000e-004	0.0151	6.0000e-005	0.0152	4.0100e-003	6.0000e-005	4.0700e-003	0.0000	9.9322	9.9322	1.8000e-004	2.2000e-004	10.0013
Total	**4.4900e-003**	**0.0795**	**0.0563**	**4.4000e-004**	**0.0268**	**5.8000e-004**	**0.0274**	**7.2900e-003**	**5.7000e-004**	**7.8600e-003**	**0.0000**	**42.7704**	**42.7704**	**1.9900e-003**	**5.3000e-003**	**44.3984**

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	0.0641	0.5170	0.6023	1.0800e-003		0.0202	0.0202		0.0193	0.0193	0.0000	89.3261	89.3261	0.0164	0.0000	89.7356
Total	**0.0641**	**0.5170**	**0.6023**	**1.0800e-003**		**0.0202**	**0.0202**		**0.0193**	**0.0193**	**0.0000**	**89.3261**	**89.3261**	**0.0164**	**0.0000**	**89.7356**

3.4 Building Construction - 2029

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	8.5000e-004	0.0521	0.0155	2.2000e-004	7.4000e-003	3.8000e-004	7.7800e-003	2.0300e-003	3.7000e-004	2.4000e-003	0.0000	21.8760	21.8760	1.4000e-003	3.4800e-003	22.9485
Vendor	6.6000e-004	0.0255	9.3300e-003	1.1000e-004	4.3400e-003	1.4000e-004	4.4800e-003	1.2500e-003	1.4000e-004	1.3900e-003	0.0000	10.9622	10.9622	4.1000e-004	1.6000e-003	11.4487
Worker	2.9800e-003	1.8700e-003	0.0315	1.1000e-004	0.0151	6.0000e-005	0.0152	4.0100e-003	6.0000e-005	4.0700e-003	0.0000	9.9322	9.9322	1.8000e-004	2.2000e-004	10.0013
Total	**4.4900e-003**	**0.0795**	**0.0563**	**4.4000e-004**	**0.0268**	**5.8000e-004**	**0.0274**	**7.2900e-003**	**5.7000e-004**	**7.8600e-003**	**0.0000**	**42.7704**	**42.7704**	**1.9900e-003**	**5.3000e-003**	**44.3984**

3.4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1613	1.0306	1.7802	3.5900e-003		0.0184	0.0184		0.0184	0.0184	0.0000	295.8422	295.8422	0.0130	0.0000	296.1681
Total	**0.1613**	**1.0306**	**1.7802**	**3.5900e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**295.8422**	**295.8422**	**0.0130**	**0.0000**	**296.1681**

3.4 Building Construction - 2030

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5700e-003	0.1566	0.0474	6.5000e-004	0.0225	1.1500e-003	0.0236	6.1700e-003	1.1000e-003	7.2700e-003	0.0000	65.0294	65.0294	4.2500e-003	0.0104	68.2208
Vendor	1.9900e-003	0.0769	0.0282	3.3000e-004	0.0132	4.3000e-004	0.0136	3.8000e-003	4.2000e-004	4.2200e-003	0.0000	32.6565	32.6565	1.2600e-003	4.7600e-003	34.1073
Worker	8.5500e-003	5.2800e-003	0.0916	3.2000e-004	0.0458	1.7000e-004	0.0460	0.0122	1.6000e-004	0.0123	0.0000	29.5024	29.5024	4.9000e-004	6.4000e-004	29.7042
Total	**0.0131**	**0.2388**	**0.1672**	**1.3000e-003**	**0.0815**	**1.7500e-003**	**0.0832**	**0.0221**	**1.6800e-003**	**0.0238**	**0.0000**	**127.1884**	**127.1884**	**6.0000e-003**	**0.0158**	**132.0322**

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	0.1613	1.0306	1.7802	3.5900e-003		0.0184	0.0184		0.0184	0.0184	0.0000	295.8419	295.8419	0.0130	0.0000	296.1678
Total	**0.1613**	**1.0306**	**1.7802**	**3.5900e-003**		**0.0184**	**0.0184**		**0.0184**	**0.0184**	**0.0000**	**295.8419**	**295.8419**	**0.0130**	**0.0000**	**296.1678**

3.4 Building Construction - 2030

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5700e-003	0.1566	0.0474	6.5000e-004	0.0225	1.1500e-003	0.0236	6.1700e-003	1.1000e-003	7.2700e-003	0.0000	65.0294	65.0294	4.2500e-003	0.0104	68.2208
Vendor	1.9900e-003	0.0769	0.0282	3.3000e-004	0.0132	4.3000e-004	0.0136	3.8000e-003	4.2000e-004	4.2200e-003	0.0000	32.6565	32.6565	1.2600e-003	4.7600e-003	34.1073
Worker	8.5500e-003	5.2800e-003	0.0916	3.2000e-004	0.0458	1.7000e-004	0.0460	0.0122	1.6000e-004	0.0123	0.0000	29.5024	29.5024	4.9000e-004	6.4000e-004	29.7042
Total	**0.0131**	**0.2388**	**0.1672**	**1.3000e-003**	**0.0815**	**1.7500e-003**	**0.0832**	**0.0221**	**1.6800e-003**	**0.0238**	**0.0000**	**127.1884**	**127.1884**	**6.0000e-003**	**0.0158**	**132.0322**

3.5 Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0233	0.1290	0.2694	4.7000e-004		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	39.8516	39.8516	1.9000e-003	0.0000	39.8990
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0233**	**0.1290**	**0.2694**	**4.7000e-004**		**5.0300e-003**	**5.0300e-003**		**5.0300e-003**	**5.0300e-003**	**0.0000**	**39.8516**	**39.8516**	**1.9000e-003**	**0.0000**	**39.8990**

3.5 Paving - 2031

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	4.2000e-004	0.0256	7.8700e-003	1.0000e-004	3.7000e-003	1.8000e-004	3.8800e-003	1.0200e-003	1.8000e-004	1.1900e-003	0.0000	10.4970	10.4970	7.0000e-004	1.6700e-003	11.0127
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	6.2000e-004	3.8000e-004	6.8200e-003	2.0000e-005	3.5400e-003	1.0000e-005	3.5500e-003	9.4000e-004	1.0000e-005	9.5000e-004	0.0000	2.2363	2.2363	4.0000e-005	5.0000e-005	2.2513
Total	**1.0400e-003**	**0.0260**	**0.0147**	**1.2000e-004**	**7.2400e-003**	**1.9000e-004**	**7.4300e-003**	**1.9600e-003**	**1.9000e-004**	**2.1400e-003**	**0.0000**	**12.7332**	**12.7332**	**7.4000e-004**	**1.7200e-003**	**13.2640**

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	0.0233	0.1290	0.2694	4.7000e-004		5.0300e-003	5.0300e-003		5.0300e-003	5.0300e-003	0.0000	39.8516	39.8516	1.9000e-003	0.0000	39.8990
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0233**	**0.1290**	**0.2694**	**4.7000e-004**		**5.0300e-003**	**5.0300e-003**		**5.0300e-003**	**5.0300e-003**	**0.0000**	**39.8516**	**39.8516**	**1.9000e-003**	**0.0000**	**39.8990**

3.5 Paving - 2031

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	4.2000e-004	0.0256	7.8700e-003	1.0000e-004	3.7000e-003	1.8000e-004	3.8800e-003	1.0200e-003	1.8000e-004	1.1900e-003	0.0000	10.4970	10.4970	7.0000e-004	1.6700e-003	11.0127
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	6.2000e-004	3.8000e-004	6.8200e-003	2.0000e-005	3.5400e-003	1.0000e-005	3.5500e-003	9.4000e-004	1.0000e-005	9.5000e-004	0.0000	2.2363	2.2363	4.0000e-005	5.0000e-005	2.2513
Total	**1.0400e-003**	**0.0260**	**0.0147**	**1.2000e-004**	**7.2400e-003**	**1.9000e-004**	**7.4300e-003**	**1.9600e-003**	**1.9000e-004**	**2.1400e-003**	**0.0000**	**12.7332**	**12.7332**	**7.4000e-004**	**1.7200e-003**	**13.2640**

3.6 Architectural Coating - 2031

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					
Archit. Coating	0.2318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0184	0.0387	6.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	5.4895	5.4895	2.2000e-004	0.0000	5.4951
Total	**0.2346**	**0.0184**	**0.0387**	**6.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**5.4895**	**5.4895**	**2.2000e-004**	**0.0000**	**5.4951**

3.6 Architectural Coating - 2031

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.5000e-004	2.7300e-003	1.0000e-005	1.4200e-003	0.0000	1.4200e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.8945	0.8945	1.0000e-005	2.0000e-005	0.9005
Total	**2.5000e-004**	**1.5000e-004**	**2.7300e-003**	**1.0000e-005**	**1.4200e-003**	**0.0000**	**1.4200e-003**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**0.0000**	**0.8945**	**0.8945**	**1.0000e-005**	**2.0000e-005**	**0.9005**

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					
Archit. Coating	0.2318					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8100e-003	0.0184	0.0387	6.0000e-005		4.4000e-004	4.4000e-004		4.4000e-004	4.4000e-004	0.0000	5.4895	5.4895	2.2000e-004	0.0000	5.4950
Total	**0.2346**	**0.0184**	**0.0387**	**6.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.4000e-004**	**4.4000e-004**	**0.0000**	**5.4895**	**5.4895**	**2.2000e-004**	**0.0000**	**5.4950**

3.6 Architectural Coating - 2031

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	1.5000e-004	2.7300e-003	1.0000e-005	1.4200e-003	0.0000	1.4200e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.8945	0.8945	1.0000e-005	2.0000e-005	0.9005
Total	**2.5000e-004**	**1.5000e-004**	**2.7300e-003**	**1.0000e-005**	**1.4200e-003**	**0.0000**	**1.4200e-003**	**3.8000e-004**	**0.0000**	**3.8000e-004**	**0.0000**	**0.8945**	**0.8945**	**1.0000e-005**	**2.0000e-005**	**0.9005**

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	0.3064	0.3313	3.0775	7.0100e-003	0.8943	4.4400e-003	0.8987	0.2387	4.1300e-003	0.2428	0.0000	648.8704	648.8704	0.0425	0.0289	658.5440
Unmitigated	0.3064	0.3313	3.0775	7.0100e-003	0.8943	4.4400e-003	0.8987	0.2387	4.1300e-003	0.2428	0.0000	648.8704	648.8704	0.0425	0.0289	658.5440

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	974.00	221.00	70.00	2,375,137	2,375,137
Total	974.00	221.00	70.00	2,375,137	2,375,137

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.536554	0.065121	0.188839	0.125865	0.023954	0.006945	0.012855	0.008856	0.000818	0.000466	0.025582	0.000769	0.003378

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	221.6819	221.6819	0.0187	2.2700e-003	222.8256
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	221.6819	221.6819	0.0187	2.2700e-003	222.8256
NaturalGas Mitigated	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	55.0181	55.0181	1.0500e-003	1.0100e-003	55.3450
NaturalGas Unmitigated	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	55.0181	55.0181	1.0500e-003	1.0100e-003	55.3450

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					
General Office Building	1.031e +006	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	55.0181	55.0181	1.0500e-003	1.0100e-003	55.3450
Total		**5.5600e-003**	**0.0505**	**0.0425**	**3.0000e-004**		**3.8400e-003**	**3.8400e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**55.0181**	**55.0181**	**1.0500e-003**	**1.0100e-003**	**55.3450**

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					
General Office Building	1.031e +006	5.5600e-003	0.0505	0.0425	3.0000e-004		3.8400e-003	3.8400e-003		3.8400e-003	3.8400e-003	0.0000	55.0181	55.0181	1.0500e-003	1.0100e-003	55.3450
Total		**5.5600e-003**	**0.0505**	**0.0425**	**3.0000e-004**		**3.8400e-003**	**3.8400e-003**		**3.8400e-003**	**3.8400e-003**	**0.0000**	**55.0181**	**55.0181**	**1.0500e-003**	**1.0100e-003**	**55.3450**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.25e +006	221.6819	0.0187	2.2700e-003	222.8256
Total		**221.6819**	**0.0187**	**2.2700e-003**	**222.8256**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	1.25e +006	221.6819	0.0187	2.2700e-003	222.8256
Total		**221.6819**	**0.0187**	**2.2700e-003**	**222.8256**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4078	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003
Unmitigated	0.4078	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003
Total	**0.4078**	**1.0000e-005**	**1.2700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6400e-003**

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	0.0464					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3614					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2000e-004	1.0000e-005	1.2700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.4800e-003	2.4800e-003	1.0000e-005	0.0000	2.6400e-003
Total	**0.4078**	**1.0000e-005**	**1.2700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.4800e-003**	**2.4800e-003**	**1.0000e-005**	**0.0000**	**2.6400e-003**

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	68.1445	0.5844	0.0143	87.0207
Unmitigated	68.1445	0.5844	0.0143	87.0207

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	17.7734 / 10.8934	68.1445	0.5844	0.0143	87.0207
Total		**68.1445**	**0.5844**	**0.0143**	**87.0207**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	17.7734 / 10.8934	68.1445	0.5844	0.0143	87.0207
Total		**68.1445**	**0.5844**	**0.0143**	**87.0207**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	18.8782	1.1157	0.0000	46.7698
Unmitigated	18.8782	1.1157	0.0000	46.7698

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	93	18.8782	1.1157	0.0000	46.7698
Total		**18.8782**	**1.1157**	**0.0000**	**46.7698**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	93	18.8782	1.1157	0.0000	46.7698
Total		**18.8782**	**1.1157**	**0.0000**	**46.7698**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

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

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

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

New 7th St Community Outreach Facility

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2031
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	220.00	347.00
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	6.00	45.00
tblConstructionPhase	NumDays	10.00	43.00
tblTripsAndVMT	HaulingTripNumber	217.00	792.00
tblTripsAndVMT	HaulingTripNumber	0.00	900.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,470.00
tblTripsAndVMT	HaulingTripNumber	0.00	430.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	1.5967	14.9916	15.3649	0.0353	7.5442	0.5618	8.0585	3.5503	0.5249	4.0241	0.0000	3,442.8633	3,442.8633	0.7185	0.1800	3,507.6623
2030	1.3388	9.6336	14.9684	0.0376	0.6350	0.1542	0.7892	0.1723	0.1535	0.3258	0.0000	3,584.1113	3,584.1113	0.1608	0.1326	3,627.6360
2031	10.9216	7.1487	13.2342	0.0278	0.3426	0.2432	0.5857	0.0924	0.2428	0.3352	0.0000	2,700.9986	2,700.9986	0.1350	0.0879	2,730.5747
Maximum	**10.9216**	**14.9916**	**15.3649**	**0.0376**	**7.5442**	**0.5618**	**8.0585**	**3.5503**	**0.5249**	**4.0241**	**0.0000**	**3,584.1113**	**3,584.1113**	**0.7185**	**0.1800**	**3,627.6360**

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					
2029	1.5967	14.9916	15.3649	0.0353	3.0857	0.5618	3.6000	1.3944	0.5249	1.8682	0.0000	3,442.8633	3,442.8633	0.7185	0.1800	3,507.6623
2030	1.3388	9.6336	14.9684	0.0376	0.6350	0.1542	0.7892	0.1723	0.1535	0.3258	0.0000	3,584.1113	3,584.1113	0.1608	0.1326	3,627.6360
2031	10.9216	7.1487	13.2342	0.0278	0.3426	0.2432	0.5857	0.0924	0.2428	0.3352	0.0000	2,700.9986	2,700.9986	0.1350	0.0879	2,730.5747
Maximum	**10.9216**	**14.9916**	**15.3649**	**0.0376**	**3.0857**	**0.5618**	**3.6000**	**1.3944**	**0.5249**	**1.8682**	**0.0000**	**3,584.1113**	**3,584.1113**	**0.7185**	**0.1800**	**3,627.6360**

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	52.32	0.00	47.26	56.51	0.00	46.02	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Mobile	2.3438	2.2139	22.7175	0.0527	6.6123	0.0322	6.6445	1.7622	0.0300	1.7923		5,381.9244	5,381.9244	0.3333	0.2219	5,456.3710
Total	**4.6091**	**2.4909**	**22.9603**	**0.0544**	**6.6123**	**0.0533**	**6.6656**	**1.7622**	**0.0511**	**1.8134**		**5,714.2589**	**5,714.2589**	**0.3397**	**0.2280**	**5,790.6818**

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	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Mobile	2.3438	2.2139	22.7175	0.0527	6.6123	0.0322	6.6445	1.7622	0.0300	1.7923		5,381.9244	5,381.9244	0.3333	0.2219	5,456.3710
Total	**4.6091**	**2.4909**	**22.9603**	**0.0544**	**6.6123**	**0.0533**	**6.6656**	**1.7622**	**0.0511**	**1.8134**		**5,714.2589**	**5,714.2589**	**0.3397**	**0.2280**	**5,790.6818**

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	5/1/2029	6/30/2029	5	44	
2	Grading	Grading	7/1/2029	8/31/2029	5	45	
3	Building Construction	Building Construction	9/1/2029	12/31/2030	5	347	
4	Paving	Paving	1/1/2031	2/28/2031	5	43	
5	Architectural Coating	Architectural Coating	3/1/2031	4/30/2031	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 45

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37

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

Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	13.00	0.00	792.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	900.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	32.00	16.00	3,470.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	430.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2029

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					1.0668	0.0000	1.0668	0.1615	0.0000	0.1615			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.793 4	2,325.793 4	0.5866		2,340.458 4
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**1.0668**	**0.5452**	**1.6120**	**0.1615**	**0.5091**	**0.6706**		**2,325.793 4**	**2,325.793 4**	**0.5866**		**2,340.458 4**

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	0.0368	2.0700	0.6468	9.1100e-003	0.3148	0.0160	0.3308	0.0863	0.0153	0.1016		1,008.926 2	1,008.926 2	0.0645	0.1606	1,058.388 4
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	0.0287	0.0159	0.3188	1.0700e-003	0.1453	5.7000e-004	0.1459	0.0385	5.3000e-004	0.0391		108.1438	108.1438	1.7900e-003	2.1000e-003	108.8155
Total	**0.0656**	**2.0858**	**0.9655**	**0.0102**	**0.4602**	**0.0166**	**0.4767**	**0.1248**	**0.0158**	**0.1407**		**1,117.070 0**	**1,117.070 0**	**0.0662**	**0.1627**	**1,167.203 9**

3.2 Demolition - 2029

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					0.3952	0.0000	0.3952	0.0598	0.0000	0.0598			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.3952**	**0.5452**	**0.9405**	**0.0598**	**0.5091**	**0.5689**	**0.0000**	**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0368	2.0700	0.6468	9.1100e-003	0.3148	0.0160	0.3308	0.0863	0.0153	0.1016		1,008.9262	1,008.9262	0.0645	0.1606	1,058.3884
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	0.0287	0.0159	0.3188	1.0700e-003	0.1453	5.7000e-004	0.1459	0.0385	5.3000e-004	0.0391		108.1438	108.1438	1.7900e-003	2.1000e-003	108.8155
Total	**0.0656**	**2.0858**	**0.9655**	**0.0102**	**0.4602**	**0.0166**	**0.4767**	**0.1248**	**0.0158**	**0.1407**		**1,117.0700**	**1,117.0700**	**0.0662**	**0.1627**	**1,167.2039**

3.3 Grading - 2029

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0409	2.3000	0.7186	0.0101	0.3498	0.0178	0.3676	0.0959	0.0170	0.1129		1,121.029 1	1,121.029 1	0.0716	0.1784	1,175.987 2
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	0.0221	0.0122	0.2452	8.2000e-004	0.1118	4.4000e-004	0.1122	0.0296	4.1000e-004	0.0301		83.1876	83.1876	1.3800e-003	1.6200e-003	83.7042
Total	**0.0630**	**2.3122**	**0.9638**	**0.0110**	**0.4616**	**0.0182**	**0.4798**	**0.1255**	**0.0174**	**0.1430**		**1,204.216 6**	**1,204.216 6**	**0.0730**	**0.1800**	**1,259.691 4**

3.3 Grading - 2029

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0409	2.3000	0.7186	0.0101	0.3498	0.0178	0.3676	0.0959	0.0170	0.1129		1,121.029 1	1,121.029 1	0.0716	0.1784	1,175.987 2
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	0.0221	0.0122	0.2452	8.2000e-004	0.1118	4.4000e-004	0.1122	0.0296	4.1000e-004	0.0301		83.1876	83.1876	1.3800e-003	1.6200e-003	83.7042
Total	**0.0630**	**2.3122**	**0.9638**	**0.0110**	**0.4616**	**0.0182**	**0.4798**	**0.1255**	**0.0174**	**0.1430**		**1,204.216 6**	**1,204.216 6**	**0.0730**	**0.1800**	**1,259.691 4**

3.4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0205	1.1500	0.3593	5.0600e-003	0.1749	8.8900e-003	0.1838	0.0479	8.5100e-003	0.0565		560.5145	560.5145	0.0358	0.0892	587.9936
Vendor	0.0158	0.5651	0.2137	2.6000e-003	0.1025	3.3400e-003	0.1058	0.0295	3.2000e-003	0.0327		280.7863	280.7863	0.0106	0.0409	293.2407
Worker	0.0707	0.0390	0.7846	2.6300e-003	0.3577	1.4100e-003	0.3591	0.0949	1.3000e-003	0.0962		266.2002	266.2002	4.4100e-003	5.1800e-003	267.8535
Total	**0.1070**	**1.7541**	**1.3577**	**0.0103**	**0.6350**	**0.0136**	**0.6487**	**0.1723**	**0.0130**	**0.1853**		**1,107.5011**	**1,107.5011**	**0.0509**	**0.1353**	**1,149.0878**

3.4 Building Construction - 2029

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0205	1.1500	0.3593	5.0600e-003	0.1749	8.8900e-003	0.1838	0.0479	8.5100e-003	0.0565		560.5145	560.5145	0.0358	0.0892	587.9936
Vendor	0.0158	0.5651	0.2137	2.6000e-003	0.1025	3.3400e-003	0.1058	0.0295	3.2000e-003	0.0327		280.7863	280.7863	0.0106	0.0409	293.2407
Worker	0.0707	0.0390	0.7846	2.6300e-003	0.3577	1.4100e-003	0.3591	0.0949	1.3000e-003	0.0962		266.2002	266.2002	4.4100e-003	5.1800e-003	267.8535
Total	**0.1070**	**1.7541**	**1.3577**	**0.0103**	**0.6350**	**0.0136**	**0.6487**	**0.1723**	**0.0130**	**0.1853**		**1,107.5011**	**1,107.5011**	**0.0509**	**0.1353**	**1,149.0878**

3.4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2362	7.8973	13.6415	0.0275		0.1407	0.1407		0.1407	0.1407		2,498.928 9	2,498.928 9	0.1101		2,501.681 7
Total	**1.2362**	**7.8973**	**13.6415**	**0.0275**		**0.1407**	**0.1407**		**0.1407**	**0.1407**		**2,498.928 9**	**2,498.928 9**	**0.1101**		**2,501.681 7**

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	0.0203	1.1384	0.3615	4.9500e-003	0.1749	8.8100e-003	0.1837	0.0479	8.4300e-003	0.0564		549.0149	549.0149	0.0359	0.0874	575.9582
Vendor	0.0156	0.5617	0.2128	2.5500e-003	0.1025	3.3200e-003	0.1058	0.0295	3.1800e-003	0.0327		275.6152	275.6152	0.0107	0.0402	287.8532
Worker	0.0667	0.0363	0.7526	2.5800e-003	0.3577	1.3200e-003	0.3590	0.0949	1.2100e-003	0.0961		260.5523	260.5523	4.0800e-003	5.0000e-003	262.1430
Total	**0.1026**	**1.7364**	**1.3269**	**0.0101**	**0.6350**	**0.0135**	**0.6485**	**0.1723**	**0.0128**	**0.1851**		**1,085.182 4**	**1,085.182 4**	**0.0507**	**0.1326**	**1,125.954 4**

3.4 Building Construction - 2030

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	1.2362	7.8973	13.6415	0.0275		0.1407	0.1407		0.1407	0.1407	0.0000	2,498.9289	2,498.9289	0.1101		2,501.6817
Total	**1.2362**	**7.8973**	**13.6415**	**0.0275**		**0.1407**	**0.1407**		**0.1407**	**0.1407**	**0.0000**	**2,498.9289**	**2,498.9289**	**0.1101**		**2,501.6817**

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	0.0203	1.1384	0.3615	4.9500e-003	0.1749	8.8100e-003	0.1837	0.0479	8.4300e-003	0.0564		549.0149	549.0149	0.0359	0.0874	575.9582
Vendor	0.0156	0.5617	0.2128	2.5500e-003	0.1025	3.3200e-003	0.1058	0.0295	3.1800e-003	0.0327		275.6152	275.6152	0.0107	0.0402	287.8532
Worker	0.0667	0.0363	0.7526	2.5800e-003	0.3577	1.3200e-003	0.3590	0.0949	1.2100e-003	0.0961		260.5523	260.5523	4.0800e-003	5.0000e-003	262.1430
Total	**0.1026**	**1.7364**	**1.3269**	**0.0101**	**0.6350**	**0.0135**	**0.6485**	**0.1723**	**0.0128**	**0.1851**		**1,085.1824**	**1,085.1824**	**0.0507**	**0.1326**	**1,125.9544**

3.5 Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0835	6.0018	12.5295	0.0218		0.2340	0.2340		0.2340	0.2340		2,043.2046	2,043.2046	0.0972		2,045.6341
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0835**	**6.0018**	**12.5295**	**0.0218**		**0.2340**	**0.2340**		**0.2340**	**0.2340**		**2,043.2046**	**2,043.2046**	**0.0972**		**2,045.6341**

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	0.0202	1.1310	0.3643	4.8500e-003	0.1749	8.5800e-003	0.1835	0.0479	8.2100e-003	0.0562		537.9090	537.9090	0.0361	0.0857	564.3355
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	0.0294	0.0159	0.3405	1.1900e-003	0.1677	5.8000e-004	0.1683	0.0445	5.3000e-004	0.0450		119.8850	119.8850	1.7800e-003	2.2700e-003	120.6052
Total	**0.0496**	**1.1469**	**0.7048**	**6.0400e-003**	**0.3426**	**9.1600e-003**	**0.3517**	**0.0924**	**8.7400e-003**	**0.1012**		**657.7940**	**657.7940**	**0.0379**	**0.0879**	**684.9406**

3.5 Paving - 2031

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	1.0835	6.0018	12.5295	0.0218		0.2340	0.2340		0.2340	0.2340	0.0000	2,043.2046	2,043.2046	0.0972		2,045.6341
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0835**	**6.0018**	**12.5295**	**0.0218**		**0.2340**	**0.2340**		**0.2340**	**0.2340**	**0.0000**	**2,043.2046**	**2,043.2046**	**0.0972**		**2,045.6341**

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	0.0202	1.1310	0.3643	4.8500e-003	0.1749	8.5800e-003	0.1835	0.0479	8.2100e-003	0.0562		537.9090	537.9090	0.0361	0.0857	564.3355
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	0.0294	0.0159	0.3405	1.1900e-003	0.1677	5.8000e-004	0.1683	0.0445	5.3000e-004	0.0450		119.8850	119.8850	1.7800e-003	2.2700e-003	120.6052
Total	**0.0496**	**1.1469**	**0.7048**	**6.0400e-003**	**0.3426**	**9.1600e-003**	**0.3517**	**0.0924**	**8.7400e-003**	**0.1012**		**657.7940**	**657.7940**	**0.0379**	**0.0879**	**684.9406**

3.6 Architectural Coating - 2031

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					
Archit. Coating	10.7791					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**10.9098**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

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	0.0118	6.3500e-003	0.1362	4.7000e-004	0.0671	2.3000e-004	0.0673	0.0178	2.1000e-004	0.0180		47.9540	47.9540	7.1000e-004	9.1000e-004	48.2421
Total	**0.0118**	**6.3500e-003**	**0.1362**	**4.7000e-004**	**0.0671**	**2.3000e-004**	**0.0673**	**0.0178**	**2.1000e-004**	**0.0180**		**47.9540**	**47.9540**	**7.1000e-004**	**9.1000e-004**	**48.2421**

3.6 Architectural Coating - 2031

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					
Archit. Coating	10.7791					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**10.9098**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

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	0.0118	6.3500e-003	0.1362	4.7000e-004	0.0671	2.3000e-004	0.0673	0.0178	2.1000e-004	0.0180		47.9540	47.9540	7.1000e-004	9.1000e-004	48.2421
Total	**0.0118**	**6.3500e-003**	**0.1362**	**4.7000e-004**	**0.0671**	**2.3000e-004**	**0.0673**	**0.0178**	**2.1000e-004**	**0.0180**		**47.9540**	**47.9540**	**7.1000e-004**	**9.1000e-004**	**48.2421**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.3438	2.2139	22.7175	0.0527	6.6123	0.0322	6.6445	1.7622	0.0300	1.7923		5,381.9244	5,381.9244	0.3333	0.2219	5,456.3710
Unmitigated	2.3438	2.2139	22.7175	0.0527	6.6123	0.0322	6.6445	1.7622	0.0300	1.7923		5,381.9244	5,381.9244	0.3333	0.2219	5,456.3710

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	974.00	221.00	70.00	2,375,137	2,375,137
Total	974.00	221.00	70.00	2,375,137	2,375,137

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.536554	0.065121	0.188839	0.125865	0.023954	0.006945	0.012855	0.008856	0.000818	0.000466	0.025582	0.000769	0.003378

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
NaturalGas Unmitigated	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874

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					
General Office Building	2824.66	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Total		**0.0305**	**0.2769**	**0.2326**	**1.6600e-003**		**0.0211**	**0.0211**		**0.0211**	**0.0211**		**332.3127**	**332.3127**	**6.3700e-003**	**6.0900e-003**	**334.2874**

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					
General Office Building	2.82466	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Total		**0.0305**	**0.2769**	**0.2326**	**1.6600e-003**		**0.0211**	**0.0211**		**0.0211**	**0.0211**		**332.3127**	**332.3127**	**6.3700e-003**	**6.0900e-003**	**334.2874**

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	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

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	0.2540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**2.2349**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

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	0.2540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**2.2349**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

New 7th St Community Outreach Facility

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	100.00	1000sqft	2.30	100,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2031
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	44.00
tblConstructionPhase	NumDays	6.00	45.00
tblConstructionPhase	NumDays	220.00	347.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	NumDays	10.00	43.00
tblConstructionPhase	PhaseEndDate	5/28/2029	6/30/2029
tblConstructionPhase	PhaseEndDate	6/5/2029	8/31/2029
tblConstructionPhase	PhaseEndDate	4/9/2030	12/31/2030
tblConstructionPhase	PhaseEndDate	4/23/2030	2/28/2031
tblConstructionPhase	PhaseEndDate	5/7/2030	4/30/2031
tblConstructionPhase	PhaseStartDate	5/29/2029	7/1/2029
tblConstructionPhase	PhaseStartDate	6/6/2029	9/1/2029
tblConstructionPhase	PhaseStartDate	4/10/2030	1/1/2031
tblConstructionPhase	PhaseStartDate	4/24/2030	3/1/2031
tblTripsAndVMT	HaulingTripNumber	217.00	792.00
tblTripsAndVMT	HaulingTripNumber	0.00	900.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,470.00
tblTripsAndVMT	HaulingTripNumber	0.00	430.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2029	1.5996	15.0927	15.3037	0.0352	7.5442	0.5619	8.0585	3.5503	0.5249	4.0241	0.0000	3,437.8112	3,437.8112	0.7183	0.1803	3,502.7024
2030	1.3416	9.7200	14.9102	0.0374	0.6350	0.1542	0.7892	0.1723	0.1536	0.3259	0.0000	3,570.2314	3,570.2314	0.1607	0.1331	3,613.9053
2031	10.9225	7.2049	13.2072	0.0277	0.3426	0.2432	0.5858	0.0924	0.2428	0.3352	0.0000	2,694.7003	2,694.7003	0.1350	0.0882	2,724.3464
Maximum	**10.9225**	**15.0927**	**15.3037**	**0.0374**	**7.5442**	**0.5619**	**8.0585**	**3.5503**	**0.5249**	**4.0241**	**0.0000**	**3,570.2314**	**3,570.2314**	**0.7183**	**0.1803**	**3,613.9053**

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					
2029	1.5996	15.0927	15.3037	0.0352	3.0857	0.5619	3.6000	1.3944	0.5249	1.8682	0.0000	3,437.8112	3,437.8112	0.7183	0.1803	3,502.7024
2030	1.3416	9.7200	14.9102	0.0374	0.6350	0.1542	0.7892	0.1723	0.1536	0.3259	0.0000	3,570.2314	3,570.2314	0.1607	0.1331	3,613.9053
2031	10.9225	7.2049	13.2072	0.0277	0.3426	0.2432	0.5858	0.0924	0.2428	0.3352	0.0000	2,694.7003	2,694.7003	0.1350	0.0882	2,724.3464
Maximum	**10.9225**	**15.0927**	**15.3037**	**0.0374**	**3.0857**	**0.5619**	**3.6000**	**1.3944**	**0.5249**	**1.8682**	**0.0000**	**3,570.2314**	**3,570.2314**	**0.7183**	**0.1803**	**3,613.9053**

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	52.32	0.00	47.26	56.51	0.00	46.02	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Mobile	2.2531	2.3784	22.1343	0.0503	6.6123	0.0323	6.6445	1.7622	0.0301	1.7923		5,137.8248	5,137.8248	0.3419	0.2300	5,214.9099
Total	**4.5185**	**2.6554**	**22.3771**	**0.0520**	**6.6123**	**0.0534**	**6.6656**	**1.7622**	**0.0511**	**1.8134**		**5,470.1593**	**5,470.1593**	**0.3483**	**0.2361**	**5,549.2206**

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	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Energy	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Mobile	2.2531	2.3784	22.1343	0.0503	6.6123	0.0323	6.6445	1.7622	0.0301	1.7923		5,137.8248	5,137.8248	0.3419	0.2300	5,214.9099
Total	**4.5185**	**2.6554**	**22.3771**	**0.0520**	**6.6123**	**0.0534**	**6.6656**	**1.7622**	**0.0511**	**1.8134**		**5,470.1593**	**5,470.1593**	**0.3483**	**0.2361**	**5,549.2206**

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	5/1/2029	6/30/2029	5	44	
2	Grading	Grading	7/1/2029	8/31/2029	5	45	
3	Building Construction	Building Construction	9/1/2029	12/31/2030	5	347	
4	Paving	Paving	1/1/2031	2/28/2031	5	43	
5	Architectural Coating	Architectural Coating	3/1/2031	4/30/2031	5	43	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 45

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Grading	Graders	1	8.00	187	0.41

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

Paving	Pavers		1	8.00	130	0.42
Paving	Rollers		2	8.00	80	0.38
Demolition	Rubber Tired Dozers		1	8.00	247	0.40
Grading	Rubber Tired Dozers		1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes		1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes		3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes		2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes		1	8.00	97	0.37
Building Construction	Generator Sets		1	8.00	84	0.74
Paving	Paving Equipment		1	8.00	132	0.36
Building Construction	Welders		3	8.00	46	0.45

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	13.00	0.00	792.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	900.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	32.00	16.00	3,470.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	430.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2029

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					1.0668	0.0000	1.0668	0.1615	0.0000	0.1615			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091		2,325.7934	2,325.7934	0.5866		2,340.4584
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**1.0668**	**0.5452**	**1.6120**	**0.1615**	**0.5091**	**0.6706**		**2,325.7934**	**2,325.7934**	**0.5866**		**2,340.4584**

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	0.0343	2.1697	0.6552	9.1200e-003	0.3148	0.0160	0.3309	0.0863	0.0153	0.1016		1,010.1310	1,010.1310	0.0643	0.1608	1,059.6477
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	0.0308	0.0173	0.2892	1.0100e-003	0.1453	5.7000e-004	0.1459	0.0385	5.3000e-004	0.0391		101.8868	101.8868	1.8300e-003	2.2300e-003	102.5963
Total	**0.0651**	**2.1870**	**0.9444**	**0.0101**	**0.4602**	**0.0166**	**0.4768**	**0.1248**	**0.0159**	**0.1407**		**1,112.0179**	**1,112.0179**	**0.0661**	**0.1630**	**1,162.2440**

3.2 Demolition - 2029

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					0.3952	0.0000	0.3952	0.0598	0.0000	0.0598			0.0000			0.0000
Off-Road	1.3396	12.9057	13.3316	0.0242		0.5452	0.5452		0.5091	0.5091	0.0000	2,325.793 4	2,325.793 4	0.5866		2,340.458 4
Total	**1.3396**	**12.9057**	**13.3316**	**0.0242**	**0.3952**	**0.5452**	**0.9405**	**0.0598**	**0.5091**	**0.5689**	**0.0000**	**2,325.793 4**	**2,325.793 4**	**0.5866**		**2,340.458 4**

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	0.0343	2.1697	0.6552	9.1200e-003	0.3148	0.0160	0.3309	0.0863	0.0153	0.1016		1,010.131 0	1,010.131 0	0.0643	0.1608	1,059.647 7
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	0.0308	0.0173	0.2892	1.0100e-003	0.1453	5.7000e-004	0.1459	0.0385	5.3000e-004	0.0391		101.8868	101.8868	1.8300e-003	2.2300e-003	102.5963
Total	**0.0651**	**2.1870**	**0.9444**	**0.0101**	**0.4602**	**0.0166**	**0.4768**	**0.1248**	**0.0159**	**0.1407**		**1,112.017 9**	**1,112.017 9**	**0.0661**	**0.1630**	**1,162.244 0**

3.3 Grading - 2029

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					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564		1,995.797 5	1,995.797 5	0.6455		2,011.934 5
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**7.0826**	**0.4961**	**7.5787**	**3.4247**	**0.4564**	**3.8811**		**1,995.797 5**	**1,995.797 5**	**0.6455**		**2,011.934 5**

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	0.0381	2.4107	0.7280	0.0101	0.3498	0.0178	0.3676	0.0959	0.0170	0.1129		1,122.367 8	1,122.367 8	0.0715	0.1786	1,177.386 3
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	0.0237	0.0133	0.2225	7.8000e-004	0.1118	4.4000e-004	0.1122	0.0296	4.1000e-004	0.0301		78.3745	78.3745	1.4100e-003	1.7100e-003	78.9203
Total	**0.0618**	**2.4241**	**0.9505**	**0.0109**	**0.4616**	**0.0183**	**0.4799**	**0.1255**	**0.0175**	**0.1430**		**1,200.742 3**	**1,200.742 3**	**0.0729**	**0.1803**	**1,256.306 6**

3.3 Grading - 2029

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					2.6241	0.0000	2.6241	1.2689	0.0000	1.2689			0.0000			0.0000
Off-Road	1.1904	12.4243	8.4937	0.0206		0.4961	0.4961		0.4564	0.4564	0.0000	1,995.7975	1,995.7975	0.6455		2,011.9345
Total	**1.1904**	**12.4243**	**8.4937**	**0.0206**	**2.6241**	**0.4961**	**3.1202**	**1.2689**	**0.4564**	**1.7252**	**0.0000**	**1,995.7975**	**1,995.7975**	**0.6455**		**2,011.9345**

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	0.0381	2.4107	0.7280	0.0101	0.3498	0.0178	0.3676	0.0959	0.0170	0.1129		1,122.3678	1,122.3678	0.0715	0.1786	1,177.3863
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	0.0237	0.0133	0.2225	7.8000e-004	0.1118	4.4000e-004	0.1122	0.0296	4.1000e-004	0.0301		78.3745	78.3745	1.4100e-003	1.7100e-003	78.9203
Total	**0.0618**	**2.4241**	**0.9505**	**0.0109**	**0.4616**	**0.0183**	**0.4799**	**0.1255**	**0.0175**	**0.1430**		**1,200.7423**	**1,200.7423**	**0.0729**	**0.1803**	**1,256.3066**

3.4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498		2,289.889 8	2,289.889 8	0.4200		2,300.388 7
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**		**2,289.889 8**	**2,289.889 8**	**0.4200**		**2,300.388 7**

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	0.0190	1.2054	0.3640	5.0700e-003	0.1749	8.9100e-003	0.1838	0.0479	8.5200e-003	0.0565		561.1839	561.1839	0.0357	0.0893	588.6932
Vendor	0.0150	0.5934	0.2206	2.6000e-003	0.1025	3.3600e-003	0.1058	0.0295	3.2100e-003	0.0327		281.3349	281.3349	0.0106	0.0410	293.8198
Worker	0.0759	0.0426	0.7118	2.4800e-003	0.3577	1.4100e-003	0.3591	0.0949	1.3000e-003	0.0962		250.7984	250.7984	4.5100e-003	5.4800e-003	252.5448
Total	**0.1099**	**1.8413**	**1.2965**	**0.0102**	**0.6350**	**0.0137**	**0.6487**	**0.1723**	**0.0130**	**0.1853**		**1,093.317 2**	**1,093.317 2**	**0.0508**	**0.1358**	**1,135.057 7**

3.4 Building Construction - 2029

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	1.4897	12.0233	14.0072	0.0250		0.4700	0.4700		0.4498	0.4498	0.0000	2,289.8898	2,289.8898	0.4200		2,300.3887
Total	**1.4897**	**12.0233**	**14.0072**	**0.0250**		**0.4700**	**0.4700**		**0.4498**	**0.4498**	**0.0000**	**2,289.8898**	**2,289.8898**	**0.4200**		**2,300.3887**

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	0.0190	1.2054	0.3640	5.0700e-003	0.1749	8.9100e-003	0.1838	0.0479	8.5200e-003	0.0565		561.1839	561.1839	0.0357	0.0893	588.6932
Vendor	0.0150	0.5934	0.2206	2.6000e-003	0.1025	3.3600e-003	0.1058	0.0295	3.2100e-003	0.0327		281.3349	281.3349	0.0106	0.0410	293.8198
Worker	0.0759	0.0426	0.7118	2.4800e-003	0.3577	1.4100e-003	0.3591	0.0949	1.3000e-003	0.0962		250.7984	250.7984	4.5100e-003	5.4800e-003	252.5448
Total	**0.1099**	**1.8413**	**1.2965**	**0.0102**	**0.6350**	**0.0137**	**0.6487**	**0.1723**	**0.0130**	**0.1853**		**1,093.3172**	**1,093.3172**	**0.0508**	**0.1358**	**1,135.0577**

3.4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2362	7.8973	13.6415	0.0275		0.1407	0.1407		0.1407	0.1407		2,498.928 9	2,498.928 9	0.1101		2,501.681 7
Total	**1.2362**	**7.8973**	**13.6415**	**0.0275**		**0.1407**	**0.1407**		**0.1407**	**0.1407**		**2,498.928 9**	**2,498.928 9**	**0.1101**		**2,501.681 7**

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	0.0189	1.1933	0.3661	4.9600e-003	0.1749	8.8300e-003	0.1837	0.0479	8.4500e-003	0.0564		549.6763	549.6763	0.0359	0.0875	576.6494
Vendor	0.0148	0.5899	0.2196	2.5500e-003	0.1025	3.3400e-003	0.1058	0.0295	3.1900e-003	0.0327		276.1585	276.1585	0.0106	0.0403	288.4264
Worker	0.0717	0.0396	0.6829	2.4300e-003	0.3577	1.3200e-003	0.3590	0.0949	1.2100e-003	0.0961		245.4677	245.4677	4.1800e-003	5.2900e-003	247.1477
Total	**0.1054**	**1.8228**	**1.2686**	**9.9400e-003**	**0.6350**	**0.0135**	**0.6485**	**0.1723**	**0.0129**	**0.1852**		**1,071.302 4**	**1,071.302 4**	**0.0506**	**0.1331**	**1,112.223 6**

3.4 Building Construction - 2030

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	1.2362	7.8973	13.6415	0.0275		0.1407	0.1407		0.1407	0.1407	0.0000	2,498.9289	2,498.9289	0.1101		2,501.6817
Total	**1.2362**	**7.8973**	**13.6415**	**0.0275**		**0.1407**	**0.1407**		**0.1407**	**0.1407**	**0.0000**	**2,498.9289**	**2,498.9289**	**0.1101**		**2,501.6817**

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	0.0189	1.1933	0.3661	4.9600e-003	0.1749	8.8300e-003	0.1837	0.0479	8.4500e-003	0.0564		549.6763	549.6763	0.0359	0.0875	576.6494
Vendor	0.0148	0.5899	0.2196	2.5500e-003	0.1025	3.3400e-003	0.1058	0.0295	3.1900e-003	0.0327		276.1585	276.1585	0.0106	0.0403	288.4264
Worker	0.0717	0.0396	0.6829	2.4300e-003	0.3577	1.3200e-003	0.3590	0.0949	1.2100e-003	0.0961		245.4677	245.4677	4.1800e-003	5.2900e-003	247.1477
Total	**0.1054**	**1.8228**	**1.2686**	**9.9400e-003**	**0.6350**	**0.0135**	**0.6485**	**0.1723**	**0.0129**	**0.1852**		**1,071.3024**	**1,071.3024**	**0.0506**	**0.1331**	**1,112.2236**

3.5 Paving - 2031

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0835	6.0018	12.5295	0.0218		0.2340	0.2340		0.2340	0.2340		2,043.2046	2,043.2046	0.0972		2,045.6341
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0835**	**6.0018**	**12.5295**	**0.0218**		**0.2340**	**0.2340**		**0.2340**	**0.2340**		**2,043.2046**	**2,043.2046**	**0.0972**		**2,045.6341**

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	0.0187	1.1858	0.3689	4.8600e-003	0.1749	8.6000e-003	0.1835	0.0479	8.2300e-003	0.0562		538.5637	538.5637	0.0360	0.0858	565.0197
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	0.0317	0.0173	0.3088	1.1200e-003	0.1677	5.8000e-004	0.1683	0.0445	5.3000e-004	0.0450		112.9321	112.9321	1.8200e-003	2.4000e-003	113.6926
Total	**0.0504**	**1.2032**	**0.6777**	**5.9800e-003**	**0.3426**	**9.1800e-003**	**0.3518**	**0.0924**	**8.7600e-003**	**0.1012**		**651.4958**	**651.4958**	**0.0378**	**0.0882**	**678.7123**

3.5 Paving - 2031

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	1.0835	6.0018	12.5295	0.0218		0.2340	0.2340		0.2340	0.2340	0.0000	2,043.2046	2,043.2046	0.0972		2,045.6341
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0835**	**6.0018**	**12.5295**	**0.0218**		**0.2340**	**0.2340**		**0.2340**	**0.2340**	**0.0000**	**2,043.2046**	**2,043.2046**	**0.0972**		**2,045.6341**

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	0.0187	1.1858	0.3689	4.8600e-003	0.1749	8.6000e-003	0.1835	0.0479	8.2300e-003	0.0562		538.5637	538.5637	0.0360	0.0858	565.0197
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	0.0317	0.0173	0.3088	1.1200e-003	0.1677	5.8000e-004	0.1683	0.0445	5.3000e-004	0.0450		112.9321	112.9321	1.8200e-003	2.4000e-003	113.6926
Total	**0.0504**	**1.2032**	**0.6777**	**5.9800e-003**	**0.3426**	**9.1800e-003**	**0.3518**	**0.0924**	**8.7600e-003**	**0.1012**		**651.4958**	**651.4958**	**0.0378**	**0.0882**	**678.7123**

3.6 Architectural Coating - 2031

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					
Archit. Coating	10.7791					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	**10.9098**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**		**281.4481**	**281.4481**	**0.0114**		**281.7328**

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	0.0127	6.9200e-003	0.1235	4.5000e-004	0.0671	2.3000e-004	0.0673	0.0178	2.1000e-004	0.0180		45.1728	45.1728	7.3000e-004	9.6000e-004	45.4770
Total	**0.0127**	**6.9200e-003**	**0.1235**	**4.5000e-004**	**0.0671**	**2.3000e-004**	**0.0673**	**0.0178**	**2.1000e-004**	**0.0180**		**45.1728**	**45.1728**	**7.3000e-004**	**9.6000e-004**	**45.4770**

3.6 Architectural Coating - 2031

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					
Archit. Coating	10.7791					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	**10.9098**	**0.8563**	**1.7977**	**2.9700e-003**		**0.0203**	**0.0203**		**0.0203**	**0.0203**	**0.0000**	**281.4481**	**281.4481**	**0.0114**		**281.7328**

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	0.0127	6.9200e-003	0.1235	4.5000e-004	0.0671	2.3000e-004	0.0673	0.0178	2.1000e-004	0.0180		45.1728	45.1728	7.3000e-004	9.6000e-004	45.4770
Total	**0.0127**	**6.9200e-003**	**0.1235**	**4.5000e-004**	**0.0671**	**2.3000e-004**	**0.0673**	**0.0178**	**2.1000e-004**	**0.0180**		**45.1728**	**45.1728**	**7.3000e-004**	**9.6000e-004**	**45.4770**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.2531	2.3784	22.1343	0.0503	6.6123	0.0323	6.6445	1.7622	0.0301	1.7923		5,137.8248	5,137.8248	0.3419	0.2300	5,214.9099
Unmitigated	2.2531	2.3784	22.1343	0.0503	6.6123	0.0323	6.6445	1.7622	0.0301	1.7923		5,137.8248	5,137.8248	0.3419	0.2300	5,214.9099

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	974.00	221.00	70.00	2,375,137	2,375,137
Total	974.00	221.00	70.00	2,375,137	2,375,137

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
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.536554	0.065121	0.188839	0.125865	0.023954	0.006945	0.012855	0.008856	0.000818	0.000466	0.025582	0.000769	0.003378

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
NaturalGas Unmitigated	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874

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					
General Office Building	2824.66	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Total		**0.0305**	**0.2769**	**0.2326**	**1.6600e-003**		**0.0211**	**0.0211**		**0.0211**	**0.0211**		**332.3127**	**332.3127**	**6.3700e-003**	**6.0900e-003**	**334.2874**

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					
General Office Building	2.82466	0.0305	0.2769	0.2326	1.6600e-003		0.0211	0.0211		0.0211	0.0211		332.3127	332.3127	6.3700e-003	6.0900e-003	334.2874
Total		**0.0305**	**0.2769**	**0.2326**	**1.6600e-003**		**0.0211**	**0.0211**		**0.0211**	**0.0211**		**332.3127**	**332.3127**	**6.3700e-003**	**6.0900e-003**	**334.2874**

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	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Unmitigated	2.2349	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233

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	0.2540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**2.2349**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

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	0.2540					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.9800					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	9.3000e-004	9.0000e-005	0.0102	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.0219	0.0219	6.0000e-005		0.0233
Total	**2.2349**	**9.0000e-005**	**0.0102**	**0.0000**		**4.0000e-005**	**4.0000e-005**		**4.0000e-005**	**4.0000e-005**		**0.0219**	**0.0219**	**6.0000e-005**		**0.0233**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Jack Rose Track/Commencement Facilities

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	5.00	17.00
tblTripsAndVMT	HaulingTripNumber	0.00	126.00
tblTripsAndVMT	HaulingTripNumber	0.00	88.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	34.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0532	0.5604	0.6228	1.2700e-003	0.0688	0.0223	0.0911	0.0311	0.0206	0.0517	0.0000	113.9982	113.9982	0.0291	3.3500e-003	115.7216
2028	0.0330	0.2121	0.2692	5.1000e-004	4.5400e-003	8.7600e-003	0.0133	1.2300e-003	8.1300e-003	9.3600e-003	0.0000	44.8269	44.8269	0.0115	1.1100e-003	45.4454
Maximum	**0.0532**	**0.5604**	**0.6228**	**1.2700e-003**	**0.0688**	**0.0223**	**0.0911**	**0.0311**	**0.0206**	**0.0517**	**0.0000**	**113.9982**	**113.9982**	**0.0291**	**3.3500e-003**	**115.7216**

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					
2027	0.0532	0.5604	0.6228	1.2700e-003	0.0320	0.0223	0.0543	0.0133	0.0206	0.0339	0.0000	113.9981	113.9981	0.0291	3.3500e-003	115.7215
2028	0.0330	0.2121	0.2692	5.1000e-004	4.5400e-003	8.7600e-003	0.0133	1.2300e-003	8.1300e-003	9.3600e-003	0.0000	44.8269	44.8269	0.0115	1.1100e-003	45.4454
Maximum	**0.0532**	**0.5604**	**0.6228**	**1.2700e-003**	**0.0320**	**0.0223**	**0.0543**	**0.0133**	**0.0206**	**0.0339**	**0.0000**	**113.9981**	**113.9981**	**0.0291**	**3.3500e-003**	**115.7215**

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**	**50.15**	**0.00**	**35.23**	**55.05**	**0.00**	**29.13**	**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	**5-1-2027**	**7-31-2027**	0.2518	0.2518
2	**8-1-2027**	**10-31-2027**	0.2157	0.2157
3	**11-1-2027**	**1-31-2028**	0.2161	0.2161
4	**2-1-2028**	**4-30-2028**	0.1724	0.1724
		Highest	0.2518	0.2518

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	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	14.4219	14.4219	9.0000e-004	1.9000e-004	14.5001
Mobile	0.0543	0.0552	0.4883	1.0300e-003	0.1221	7.3000e-004	0.1228	0.0326	6.8000e-004	0.0333	0.0000	95.4296	95.4296	6.8900e-003	4.6100e-003	96.9747
Waste						0.0000	0.0000		0.0000	0.0000	5.7852	0.0000	5.7852	0.3419	0.0000	14.3327
Water						0.0000	0.0000		0.0000	0.0000	0.0938	1.0400	1.1338	9.7200e-003	2.4000e-004	1.4479
Total	**0.0752**	**0.0596**	**0.4921**	**1.0600e-003**	**0.1221**	**1.0600e-003**	**0.1232**	**0.0326**	**1.0100e-003**	**0.0336**	**5.8791**	**110.8916**	**116.7707**	**0.3594**	**5.0400e-003**	**127.2555**

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	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	14.4219	14.4219	9.0000e-004	1.9000e-004	14.5001
Mobile	0.0543	0.0552	0.4883	1.0300e-003	0.1221	7.3000e-004	0.1228	0.0326	6.8000e-004	0.0333	0.0000	95.4296	95.4296	6.8900e-003	4.6100e-003	96.9747
Waste						0.0000	0.0000		0.0000	0.0000	5.7852	0.0000	5.7852	0.3419	0.0000	14.3327
Water						0.0000	0.0000		0.0000	0.0000	0.0938	1.0400	1.1338	9.7200e-003	2.4000e-004	1.4479
Total	**0.0752**	**0.0596**	**0.4921**	**1.0600e-003**	**0.1221**	**1.0600e-003**	**0.1232**	**0.0326**	**1.0100e-003**	**0.0336**	**5.8791**	**110.8916**	**116.7707**	**0.3594**	**5.0400e-003**	**127.2555**

	ROG	**NOx**	**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	5/1/2027	5/31/2027	5	21	
2	Grading	Grading	6/1/2027	6/30/2027	5	22	
3	Building Construction	Building Construction	7/1/2027	3/15/2028	5	185	

4	Paving	Paving	3/16/2028	4/7/2028	5	17	
5	Architectural Coating	Architectural Coating	4/8/2028	4/28/2028	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	4	10.00	0.00	126.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	34.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	6.0300e-003	0.0536	0.0773	1.3000e-004		2.2100e-003	2.2100e-003		2.1100e-003	2.1100e-003	0.0000	10.9459	10.9459	1.9600e-003	0.0000	10.9949
Total	**6.0300e-003**	**0.0536**	**0.0773**	**1.3000e-004**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**0.0000**	**10.9459**	**10.9459**	**1.9600e-003**	**0.0000**	**10.9949**

3.2 Demolition - 2027

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	1.3000e-004	7.8000e-003	2.2400e-003	3.0000e-005	1.0800e-003	6.0000e-005	1.1400e-003	3.0000e-004	5.0000e-005	3.5000e-004	0.0000	3.3420	3.3420	2.0000e-004	5.3000e-004	3.5055
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	2.6000e-004	1.7000e-004	2.6400e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.7964	0.7964	2.0000e-005	2.0000e-005	0.8022
Total	**3.9000e-004**	**7.9700e-003**	**4.8800e-003**	**4.0000e-005**	**2.2300e-003**	**7.0000e-005**	**2.3000e-003**	**6.1000e-004**	**5.0000e-005**	**6.6000e-004**	**0.0000**	**4.1384**	**4.1384**	**2.2000e-004**	**5.5000e-004**	**4.3077**

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	6.0300e-003	0.0536	0.0773	1.3000e-004		2.2100e-003	2.2100e-003		2.1100e-003	2.1100e-003	0.0000	10.9459	10.9459	1.9600e-003	0.0000	10.9949
Total	**6.0300e-003**	**0.0536**	**0.0773**	**1.3000e-004**	**0.0000**	**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**0.0000**	**10.9459**	**10.9459**	**1.9600e-003**	**0.0000**	**10.9949**

3.2 Demolition - 2027

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	1.3000e-004	7.8000e-003	2.2400e-003	3.0000e-005	1.0800e-003	6.0000e-005	1.1400e-003	3.0000e-004	5.0000e-005	3.5000e-004	0.0000	3.3420	3.3420	2.0000e-004	5.3000e-004	3.5055
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	2.6000e-004	1.7000e-004	2.6400e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	0.0000	3.1000e-004	0.0000	0.7964	0.7964	2.0000e-005	2.0000e-005	0.8022
Total	**3.9000e-004**	**7.9700e-003**	**4.8800e-003**	**4.0000e-005**	**2.2300e-003**	**7.0000e-005**	**2.3000e-003**	**6.1000e-004**	**5.0000e-005**	**6.6000e-004**	**0.0000**	**4.1384**	**4.1384**	**2.2000e-004**	**5.5000e-004**	**4.3077**

3.3 Grading - 2027

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					0.0584	0.0000	0.0584	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1800e-003	0.0961	0.0593	1.6000e-004		3.8300e-003	3.8300e-003		3.5300e-003	3.5300e-003	0.0000	13.6184	13.6184	4.4000e-003	0.0000	13.7285
Total	**9.1800e-003**	**0.0961**	**0.0593**	**1.6000e-004**	**0.0584**	**3.8300e-003**	**0.0623**	**0.0283**	**3.5300e-003**	**0.0318**	**0.0000**	**13.6184**	**13.6184**	**4.4000e-003**	**0.0000**	**13.7285**

3.3 Grading - 2027

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	9.0000e-005	5.4500e-003	1.5700e-003	2.0000e-005	7.6000e-004	4.0000e-005	8.0000e-004	2.1000e-004	4.0000e-005	2.5000e-004	0.0000	2.3341	2.3341	1.4000e-004	3.7000e-004	2.4483
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	2.1000e-004	1.4000e-004	2.2100e-003	1.0000e-005	9.7000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.6675	0.6675	1.0000e-005	2.0000e-005	0.6723
Total	**3.0000e-004**	**5.5900e-003**	**3.7800e-003**	**3.0000e-005**	**1.7300e-003**	**4.0000e-005**	**1.7700e-003**	**4.7000e-004**	**4.0000e-005**	**5.1000e-004**	**0.0000**	**3.0016**	**3.0016**	**1.5000e-004**	**3.9000e-004**	**3.1206**

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					0.0217	0.0000	0.0217	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1800e-003	0.0961	0.0593	1.6000e-004		3.8300e-003	3.8300e-003		3.5300e-003	3.5300e-003	0.0000	13.6184	13.6184	4.4000e-003	0.0000	13.7285
Total	**9.1800e-003**	**0.0961**	**0.0593**	**1.6000e-004**	**0.0217**	**3.8300e-003**	**0.0255**	**0.0105**	**3.5300e-003**	**0.0140**	**0.0000**	**13.6184**	**13.6184**	**4.4000e-003**	**0.0000**	**13.7285**

3.3 Grading - 2027

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	9.0000e-005	5.4500e-003	1.5700e-003	2.0000e-005	7.6000e-004	4.0000e-005	8.0000e-004	2.1000e-004	4.0000e-005	2.5000e-004	0.0000	2.3341	2.3341	1.4000e-004	3.7000e-004	2.4483
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	2.1000e-004	1.4000e-004	2.2100e-003	1.0000e-005	9.7000e-004	0.0000	9.7000e-004	2.6000e-004	0.0000	2.6000e-004	0.0000	0.6675	0.6675	1.0000e-005	2.0000e-005	0.6723
Total	**3.0000e-004**	**5.5900e-003**	**3.7800e-003**	**3.0000e-005**	**1.7300e-003**	**4.0000e-005**	**1.7700e-003**	**4.7000e-004**	**4.0000e-005**	**5.1000e-004**	**0.0000**	**3.0016**	**3.0016**	**1.5000e-004**	**3.9000e-004**	**3.1206**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0364	0.3618	0.4639	7.5000e-004		0.0159	0.0159		0.0147	0.0147	0.0000	66.1952	66.1952	0.0214	0.0000	66.7304
Total	**0.0364**	**0.3618**	**0.4639**	**7.5000e-004**		**0.0159**	**0.0159**		**0.0147**	**0.0147**	**0.0000**	**66.1952**	**66.1952**	**0.0214**	**0.0000**	**66.7304**

3.4 Building Construction - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3000e-004	0.0327	9.4000e-003	1.4000e-004	4.5400e-003	2.4000e-004	4.7800e-003	1.2500e-003	2.3000e-004	1.4800e-003	0.0000	14.0045	14.0045	8.5000e-004	2.2300e-003	14.6896
Vendor	7.0000e-005	2.4800e-003	9.1000e-004	1.0000e-005	4.2000e-004	1.0000e-005	4.3000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.0931	1.0931	4.0000e-005	1.6000e-004	1.1415
Worker	3.2000e-004	2.1000e-004	3.3200e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0012	1.0012	2.0000e-005	2.0000e-005	1.0085
Total	**9.2000e-004**	**0.0354**	**0.0136**	**1.6000e-004**	**6.4100e-003**	**2.6000e-004**	**6.6600e-003**	**1.7500e-003**	**2.5000e-004**	**2.0000e-003**	**0.0000**	**16.0988**	**16.0988**	**9.1000e-004**	**2.4100e-003**	**16.8396**

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	0.0364	0.3618	0.4639	7.5000e-004		0.0159	0.0159		0.0147	0.0147	0.0000	66.1951	66.1951	0.0214	0.0000	66.7303
Total	**0.0364**	**0.3618**	**0.4639**	**7.5000e-004**		**0.0159**	**0.0159**		**0.0147**	**0.0147**	**0.0000**	**66.1951**	**66.1951**	**0.0214**	**0.0000**	**66.7303**

3.4 Building Construction - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.3000e-004	0.0327	9.4000e-003	1.4000e-004	4.5400e-003	2.4000e-004	4.7800e-003	1.2500e-003	2.3000e-004	1.4800e-003	0.0000	14.0045	14.0045	8.5000e-004	2.2300e-003	14.6896
Vendor	7.0000e-005	2.4800e-003	9.1000e-004	1.0000e-005	4.2000e-004	1.0000e-005	4.3000e-004	1.2000e-004	1.0000e-005	1.3000e-004	0.0000	1.0931	1.0931	4.0000e-005	1.6000e-004	1.1415
Worker	3.2000e-004	2.1000e-004	3.3200e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0012	1.0012	2.0000e-005	2.0000e-005	1.0085
Total	**9.2000e-004**	**0.0354**	**0.0136**	**1.6000e-004**	**6.4100e-003**	**2.6000e-004**	**6.6600e-003**	**1.7500e-003**	**2.5000e-004**	**2.0000e-003**	**0.0000**	**16.0988**	**16.0988**	**9.1000e-004**	**2.4100e-003**	**16.8396**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0146	0.1453	0.1863	3.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	26.5784	26.5784	8.6000e-003	0.0000	26.7933
Total	**0.0146**	**0.1453**	**0.1863**	**3.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**	**0.0000**	**26.5784**	**26.5784**	**8.6000e-003**	**0.0000**	**26.7933**

3.4 Building Construction - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0130	3.8000e-003	5.0000e-005	1.8200e-003	1.0000e-004	1.9200e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.5068	5.5068	3.4000e-004	8.8000e-004	5.7764
Vendor	3.0000e-005	9.9000e-004	3.6000e-004	0.0000	1.7000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4304	0.4304	2.0000e-005	6.0000e-005	0.4495
Worker	1.2000e-004	8.0000e-005	1.2700e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.3917	0.3917	1.0000e-005	1.0000e-005	0.3945
Total	**3.6000e-004**	**0.0141**	**5.4300e-003**	**5.0000e-005**	**2.5700e-003**	**1.1000e-004**	**2.6700e-003**	**7.0000e-004**	**1.0000e-004**	**8.0000e-004**	**0.0000**	**6.3289**	**6.3289**	**3.7000e-004**	**9.5000e-004**	**6.6204**

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	0.0146	0.1453	0.1863	3.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	26.5783	26.5783	8.6000e-003	0.0000	26.7932
Total	**0.0146**	**0.1453**	**0.1863**	**3.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**	**0.0000**	**26.5783**	**26.5783**	**8.6000e-003**	**0.0000**	**26.7932**

3.4 Building Construction - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.1000e-004	0.0130	3.8000e-003	5.0000e-005	1.8200e-003	1.0000e-004	1.9200e-003	5.0000e-004	9.0000e-005	5.9000e-004	0.0000	5.5068	5.5068	3.4000e-004	8.8000e-004	5.7764
Vendor	3.0000e-005	9.9000e-004	3.6000e-004	0.0000	1.7000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4304	0.4304	2.0000e-005	6.0000e-005	0.4495
Worker	1.2000e-004	8.0000e-005	1.2700e-003	0.0000	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.3917	0.3917	1.0000e-005	1.0000e-005	0.3945
Total	**3.6000e-004**	**0.0141**	**5.4300e-003**	**5.0000e-005**	**2.5700e-003**	**1.1000e-004**	**2.6700e-003**	**7.0000e-004**	**1.0000e-004**	**8.0000e-004**	**0.0000**	**6.3289**	**6.3289**	**3.7000e-004**	**9.5000e-004**	**6.6204**

3.5 Paving - 2028

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	4.7900e-003	0.0418	0.0597	1.0000e-004		1.8600e-003	1.8600e-003		1.7400e-003	1.7400e-003	0.0000	7.9908	7.9908	2.3300e-003	0.0000	8.0490
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7900e-003**	**0.0418**	**0.0597**	**1.0000e-004**		**1.8600e-003**	**1.8600e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**7.9908**	**7.9908**	**2.3300e-003**	**0.0000**	**8.0490**

3.5 Paving - 2028

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	2.0800e-003	6.1000e-004	1.0000e-005	2.9000e-004	2.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8832	0.8832	5.0000e-005	1.4000e-004	0.9264
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	3.5000e-004	2.2000e-004	3.6600e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.1308	1.1308	2.0000e-005	3.0000e-005	1.1388
Total	**3.8000e-004**	**2.3000e-003**	**4.2700e-003**	**2.0000e-005**	**1.9700e-003**	**3.0000e-005**	**2.0000e-003**	**5.3000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**2.0140**	**2.0140**	**7.0000e-005**	**1.7000e-004**	**2.0652**

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	4.7900e-003	0.0418	0.0597	1.0000e-004		1.8600e-003	1.8600e-003		1.7400e-003	1.7400e-003	0.0000	7.9908	7.9908	2.3300e-003	0.0000	8.0489
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.7900e-003**	**0.0418**	**0.0597**	**1.0000e-004**		**1.8600e-003**	**1.8600e-003**		**1.7400e-003**	**1.7400e-003**	**0.0000**	**7.9908**	**7.9908**	**2.3300e-003**	**0.0000**	**8.0489**

3.5 Paving - 2028

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	2.0800e-003	6.1000e-004	1.0000e-005	2.9000e-004	2.0000e-005	3.1000e-004	8.0000e-005	1.0000e-005	9.0000e-005	0.0000	0.8832	0.8832	5.0000e-005	1.4000e-004	0.9264
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	3.5000e-004	2.2000e-004	3.6600e-003	1.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.5000e-004	0.0000	1.1308	1.1308	2.0000e-005	3.0000e-005	1.1388
Total	**3.8000e-004**	**2.3000e-003**	**4.2700e-003**	**2.0000e-005**	**1.9700e-003**	**3.0000e-005**	**2.0000e-003**	**5.3000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**2.0140**	**2.0140**	**7.0000e-005**	**1.7000e-004**	**2.0652**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2800e-003	8.5900e-003	0.0136	2.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	1.9149	1.9149	1.0000e-004	0.0000	1.9176
Total	**0.0129**	**8.5900e-003**	**0.0136**	**2.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.0000e-004**	**0.0000**	**1.9176**

3.6 Architectural Coating - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	0.0116					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2800e-003	8.5900e-003	0.0136	2.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	1.9149	1.9149	1.0000e-004	0.0000	1.9176
Total	**0.0129**	**8.5900e-003**	**0.0136**	**2.0000e-005**		**3.9000e-004**	**3.9000e-004**		**3.9000e-004**	**3.9000e-004**	**0.0000**	**1.9149**	**1.9149**	**1.0000e-004**	**0.0000**	**1.9176**

3.6 Architectural Coating - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	0.0543	0.0552	0.4883	1.0300e-003	0.1221	7.3000e-004	0.1228	0.0326	6.8000e-004	0.0333	0.0000	95.4296	95.4296	6.8900e-003	4.6100e-003	96.9747
Unmitigated	0.0543	0.0552	0.4883	1.0300e-003	0.1221	7.3000e-004	0.1228	0.0326	6.8000e-004	0.0333	0.0000	95.4296	95.4296	6.8900e-003	4.6100e-003	96.9747

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	164.65	104.35	133.65	324,253	324,253
Total	164.65	104.35	133.65	324,253	324,253

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
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

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	9.6299	9.6299	8.1000e-004	1.0000e-004	9.6795
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9.6299	9.6299	8.1000e-004	1.0000e-004	9.6795
NaturalGas Mitigated	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7921	4.7921	9.0000e-005	9.0000e-005	4.8206
NaturalGas Unmitigated	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7921	4.7921	9.0000e-005	9.0000e-005	4.8206

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					
Health Club	89800	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7921	4.7921	9.0000e-005	9.0000e-005	4.8206
Total		**4.8000e-004**	**4.4000e-003**	**3.7000e-003**	**3.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**4.7921**	**4.7921**	**9.0000e-005**	**9.0000e-005**	**4.8206**

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					
Health Club	89800	4.8000e-004	4.4000e-003	3.7000e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.7921	4.7921	9.0000e-005	9.0000e-005	4.8206
Total		**4.8000e-004**	**4.4000e-003**	**3.7000e-003**	**3.0000e-005**		**3.3000e-004**	**3.3000e-004**		**3.3000e-004**	**3.3000e-004**	**0.0000**	**4.7921**	**4.7921**	**9.0000e-005**	**9.0000e-005**	**4.8206**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Health Club	54300	9.6299	8.1000e-004	1.0000e-004	9.6795
Total		**9.6299**	**8.1000e-004**	**1.0000e-004**	**9.6795**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Health Club	54300	9.6299	8.1000e-004	1.0000e-004	9.6795
Total		**9.6299**	**8.1000e-004**	**1.0000e-004**	**9.6795**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Unmitigated	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

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	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**0.0204**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

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	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**0.0204**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1338	9.7200e-003	2.4000e-004	1.4479
Unmitigated	1.1338	9.7200e-003	2.4000e-004	1.4479

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	0.295716 / 0.181245	1.1338	9.7200e-003	2.4000e-004	1.4479
Total		**1.1338**	**9.7200e-003**	**2.4000e-004**	**1.4479**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Health Club	0.295716 / 0.181245	1.1338	9.7200e-003	2.4000e-004	1.4479
Total		**1.1338**	**9.7200e-003**	**2.4000e-004**	**1.4479**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.7852	0.3419	0.0000	14.3327
Unmitigated	5.7852	0.3419	0.0000	14.3327

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Health Club	28.5	5.7852	0.3419	0.0000	14.3327
Total		**5.7852**	**0.3419**	**0.0000**	**14.3327**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Health Club	28.5	5.7852	0.3419	0.0000	14.3327
Total		**5.7852**	**0.3419**	**0.0000**	**14.3327**

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

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

Jack Rose Track/Commencement Facilities

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	5.00	17.00
tblTripsAndVMT	HaulingTripNumber	0.00	126.00
tblTripsAndVMT	HaulingTripNumber	0.00	88.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	34.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	0.8631	9.2155	7.8465	0.0169	5.4713	0.3524	5.8237	2.6114	0.3243	2.9358	0.0000	1,668.4120	1,668.4120	0.4569	0.0575	1,691.3358
2028	1.7159	5.9852	7.5593	0.0138	0.2362	0.2452	0.4575	0.0630	0.2257	0.2700	0.0000	1,369.4435	1,369.4435	0.3728	0.0394	1,390.4951
Maximum	**1.7159**	**9.2155**	**7.8465**	**0.0169**	**5.4713**	**0.3524**	**5.8237**	**2.6114**	**0.3243**	**2.9358**	**0.0000**	**1,668.4120**	**1,668.4120**	**0.4569**	**0.0575**	**1,691.3358**

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					
2027	0.8631	9.2155	7.8465	0.0169	2.1275	0.3524	2.4799	0.9945	0.3243	1.3189	0.0000	1,668.4120	1,668.4120	0.4569	0.0575	1,691.3358
2028	1.7159	5.9852	7.5593	0.0138	0.2362	0.2452	0.4575	0.0630	0.2257	0.2700	0.0000	1,369.4435	1,369.4435	0.3728	0.0394	1,390.4951
Maximum	**1.7159**	**9.2155**	**7.8465**	**0.0169**	**2.1275**	**0.3524**	**2.4799**	**0.9945**	**0.3243**	**1.3189**	**0.0000**	**1,668.4120**	**1,668.4120**	**0.4569**	**0.0575**	**1,691.3358**

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	58.59	0.00	53.24	60.46	0.00	50.44	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Mobile	0.3464	0.3039	2.9318	6.3800e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0700e-003	0.2018		650.4204	650.4204	0.0440	0.0291	660.1829
Total	**0.4608**	**0.3280**	**2.9526**	**6.5200e-003**	**0.7421**	**6.2100e-003**	**0.7483**	**0.1978**	**5.9000e-003**	**0.2037**		**679.3659**	**679.3659**	**0.0445**	**0.0296**	**689.3005**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Mobile	0.3464	0.3039	2.9318	6.3800e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0700e-003	0.2018		650.4204	650.4204	0.0440	0.0291	660.1829
Total	**0.4608**	**0.3280**	**2.9526**	**6.5200e-003**	**0.7421**	**6.2100e-003**	**0.7483**	**0.1978**	**5.9000e-003**	**0.2037**		**679.3659**	**679.3659**	**0.0445**	**0.0296**	**689.3005**

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	5/1/2027	5/31/2027	5	21	
2	Grading	Grading	6/1/2027	6/30/2027	5	22	
3	Building Construction	Building Construction	7/1/2027	3/15/2028	5	185	
4	Paving	Paving	3/16/2028	4/7/2028	5	17	
5	Architectural Coating	Architectural Coating	4/8/2028	4/28/2028	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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

Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	126.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	34.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0125	0.7049	0.2125	3.1700e-003	0.1050	5.4200e-003	0.1104	0.0288	5.1900e-003	0.0340		350.6745	350.6745	0.0213	0.0558	367.8295
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0373**	**0.7192**	**0.4824**	**4.0300e-003**	**0.2167**	**5.9300e-003**	**0.2227**	**0.0584**	**5.6600e-003**	**0.0641**		**438.0875**	**438.0875**	**0.0229**	**0.0575**	**455.8085**

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0125	0.7049	0.2125	3.1700e-003	0.1050	5.4200e-003	0.1104	0.0288	5.1900e-003	0.0340		350.6745	350.6745	0.0213	0.0558	367.8295
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0373**	**0.7192**	**0.4824**	**4.0300e-003**	**0.2167**	**5.9300e-003**	**0.2227**	**0.0584**	**5.6600e-003**	**0.0641**		**438.0875**	**438.0875**	**0.0229**	**0.0575**	**455.8085**

3.3 Grading - 2027

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.698 7	1,364.698 7	0.4414		1,375.732 9
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**5.3119**	**0.3484**	**5.6603**	**2.5686**	**0.3205**	**2.8891**		**1,364.698 7**	**1,364.698 7**	**0.4414**		**1,375.732 9**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
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	0.0198	0.0114	0.2160	6.9000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		69.9304	69.9304	1.3000e-003	1.4100e-003	70.3832
Total	**0.0281**	**0.4814**	**0.3576**	**2.8100e-003**	**0.1594**	**4.0300e-003**	**0.1634**	**0.0429**	**3.8300e-003**	**0.0467**		**303.7134**	**303.7134**	**0.0155**	**0.0386**	**315.6028**

3.3 Grading - 2027

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.698 7	1,364.698 7	0.4414		1,375.732 9
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.9681**	**0.3484**	**2.3164**	**0.9517**	**0.3205**	**1.2722**	**0.0000**	**1,364.698 7**	**1,364.698 7**	**0.4414**		**1,375.732 9**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
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	0.0198	0.0114	0.2160	6.9000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		69.9304	69.9304	1.3000e-003	1.4100e-003	70.3832
Total	**0.0281**	**0.4814**	**0.3576**	**2.8100e-003**	**0.1594**	**4.0300e-003**	**0.1634**	**0.0429**	**3.8300e-003**	**0.0467**		**303.7134**	**303.7134**	**0.0155**	**0.0386**	**315.6028**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.571 1	1,105.571 1	0.3576		1,114.510 2
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.571 1**	**1,105.571 1**	**0.3576**		**1,114.510 2**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
Vendor	1.0200e-003	0.0358	0.0135	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0500e-003		18.2422	18.2422	6.6000e-004	2.6500e-003	19.0494
Worker	4.9500e-003	2.8600e-003	0.0540	1.7000e-004	0.0224	1.0000e-004	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		17.4826	17.4826	3.3000e-004	3.5000e-004	17.5958
Total	**0.0143**	**0.5086**	**0.2092**	**2.4600e-003**	**0.0987**	**3.9300e-003**	**0.1027**	**0.0270**	**3.7500e-003**	**0.0307**		**269.5078**	**269.5078**	**0.0152**	**0.0402**	**281.8649**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
Vendor	1.0200e-003	0.0358	0.0135	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0500e-003		18.2422	18.2422	6.6000e-004	2.6500e-003	19.0494
Worker	4.9500e-003	2.8600e-003	0.0540	1.7000e-004	0.0224	1.0000e-004	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		17.4826	17.4826	3.3000e-004	3.5000e-004	17.5958
Total	**0.0143**	**0.5086**	**0.2092**	**2.4600e-003**	**0.0987**	**3.9300e-003**	**0.1027**	**0.0270**	**3.7500e-003**	**0.0307**		**269.5078**	**269.5078**	**0.0152**	**0.0402**	**281.8649**

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

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
Vendor	1.0000e-003	0.0356	0.0134	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0400e-003		17.8883	17.8883	6.6000e-004	2.6000e-003	18.6808
Worker	4.6800e-003	2.6400e-003	0.0514	1.7000e-004	0.0224	9.0000e-005	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		17.0353	17.0353	3.0000e-004	3.4000e-004	17.1432
Total	**0.0139**	**0.5033**	**0.2075**	**2.4100e-003**	**0.0987**	**3.8900e-003**	**0.1026**	**0.0270**	**3.7200e-003**	**0.0307**		**263.8724**	**263.8724**	**0.0152**	**0.0394**	**275.9849**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
Vendor	1.0000e-003	0.0356	0.0134	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0400e-003		17.8883	17.8883	6.6000e-004	2.6000e-003	18.6808
Worker	4.6800e-003	2.6400e-003	0.0514	1.7000e-004	0.0224	9.0000e-005	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		17.0353	17.0353	3.0000e-004	3.4000e-004	17.1432
Total	**0.0139**	**0.5033**	**0.2075**	**2.4100e-003**	**0.0987**	**3.8900e-003**	**0.1026**	**0.0270**	**3.7200e-003**	**0.0307**		**263.8724**	**263.8724**	**0.0152**	**0.0394**	**275.9849**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.1300e-003	0.2325	0.0714	1.0300e-003	0.0350	1.7900e-003	0.0368	9.5900e-003	1.7200e-003	0.0113		114.4745	114.4745	7.1300e-003	0.0182	120.0805
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	0.0421	0.0237	0.4622	1.5200e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		153.3173	153.3173	2.6900e-003	3.0300e-003	154.2885
Total	**0.0463**	**0.2563**	**0.5336**	**2.5500e-003**	**0.2362**	**2.6400e-003**	**0.2388**	**0.0630**	**2.5000e-003**	**0.0655**		**267.7918**	**267.7918**	**9.8200e-003**	**0.0212**	**274.3689**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.1300e-003	0.2325	0.0714	1.0300e-003	0.0350	1.7900e-003	0.0368	9.5900e-003	1.7200e-003	0.0113		114.4745	114.4745	7.1300e-003	0.0182	120.0805
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	0.0421	0.0237	0.4622	1.5200e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		153.3173	153.3173	2.6900e-003	3.0300e-003	154.2885
Total	**0.0463**	**0.2563**	**0.5336**	**2.5500e-003**	**0.2362**	**2.6400e-003**	**0.2388**	**0.0630**	**2.5000e-003**	**0.0655**		**267.7918**	**267.7918**	**9.8200e-003**	**0.0212**	**274.3689**

3.6 Architectural Coating - 2028

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					
Archit. Coating	1.5450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**1.7159**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2028

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					
Archit. Coating	1.5450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**1.7159**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3464	0.3039	2.9318	6.3800e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0700e-003	0.2018		650.4204	650.4204	0.0440	0.0291	660.1829
Unmitigated	0.3464	0.3039	2.9318	6.3800e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0700e-003	0.2018		650.4204	650.4204	0.0440	0.0291	660.1829

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	164.65	104.35	133.65	324,253	324,253
Total	164.65	104.35	133.65	324,253	324,253

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
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
NaturalGas Unmitigated	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164

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					
Health Club	246.027	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Total		**2.6500e-003**	**0.0241**	**0.0203**	**1.4000e-004**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**		**28.9444**	**28.9444**	**5.5000e-004**	**5.3000e-004**	**29.1164**

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					
Health Club	0.246027	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Total		**2.6500e-003**	**0.0241**	**0.0203**	**1.4000e-004**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**		**28.9444**	**28.9444**	**5.5000e-004**	**5.3000e-004**	**29.1164**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

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	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Jack Rose Track/Commencement Facilities

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	21.00
tblConstructionPhase	NumDays	2.00	22.00
tblConstructionPhase	NumDays	100.00	185.00
tblConstructionPhase	NumDays	5.00	17.00
tblConstructionPhase	NumDays	5.00	15.00
tblConstructionPhase	PhaseEndDate	5/14/2027	5/31/2027
tblConstructionPhase	PhaseEndDate	5/18/2027	6/30/2027
tblConstructionPhase	PhaseEndDate	10/5/2027	3/15/2028
tblConstructionPhase	PhaseEndDate	10/12/2027	4/7/2028
tblConstructionPhase	PhaseEndDate	10/19/2027	4/28/2028
tblConstructionPhase	PhaseStartDate	5/15/2027	6/1/2027
tblConstructionPhase	PhaseStartDate	5/19/2027	7/1/2027
tblConstructionPhase	PhaseStartDate	10/6/2027	3/16/2028
tblConstructionPhase	PhaseStartDate	10/13/2027	4/8/2028
tblTripsAndVMT	HaulingTripNumber	0.00	126.00
tblTripsAndVMT	HaulingTripNumber	0.00	88.00
tblTripsAndVMT	HaulingTripNumber	0.00	740.00
tblTripsAndVMT	HaulingTripNumber	0.00	34.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	0.8639	9.2391	7.8242	0.0169	5.4713	0.3524	5.8237	2.6114	0.3243	2.9358	0.0000	1,664.6416	1,664.6416	0.4569	0.0577	1,687.6033
2028	1.7159	6.0096	7.5173	0.0138	0.2362	0.2452	0.4575	0.0630	0.2257	0.2700	0.0000	1,368.7639	1,368.7639	0.3728	0.0394	1,389.8357
Maximum	**1.7159**	**9.2391**	**7.8242**	**0.0169**	**5.4713**	**0.3524**	**5.8237**	**2.6114**	**0.3243**	**2.9358**	**0.0000**	**1,664.6416**	**1,664.6416**	**0.4569**	**0.0577**	**1,687.6033**

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					
2027	0.8639	9.2391	7.8242	0.0169	2.1275	0.3524	2.4799	0.9945	0.3243	1.3189	0.0000	1,664.6416	1,664.6416	0.4569	0.0577	1,687.6033
2028	1.7159	6.0096	7.5173	0.0138	0.2362	0.2452	0.4575	0.0630	0.2257	0.2700	0.0000	1,368.7639	1,368.7639	0.3728	0.0394	1,389.8357
Maximum	**1.7159**	**9.2391**	**7.8242**	**0.0169**	**2.1275**	**0.3524**	**2.4799**	**0.9945**	**0.3243**	**1.3189**	**0.0000**	**1,664.6416**	**1,664.6416**	**0.4569**	**0.0577**	**1,687.6033**

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	58.59	0.00	53.24	60.46	0.00	50.44	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Mobile	0.3295	0.3264	2.8951	6.0900e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0800e-003	0.2018		621.2795	621.2795	0.0456	0.0302	631.4208
Total	**0.4439**	**0.3505**	**2.9159**	**6.2300e-003**	**0.7421**	**6.2100e-003**	**0.7483**	**0.1978**	**5.9100e-003**	**0.2037**		**650.2250**	**650.2250**	**0.0462**	**0.0307**	**660.5383**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Mobile	0.3295	0.3264	2.8951	6.0900e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0800e-003	0.2018		621.2795	621.2795	0.0456	0.0302	631.4208
Total	**0.4439**	**0.3505**	**2.9159**	**6.2300e-003**	**0.7421**	**6.2100e-003**	**0.7483**	**0.1978**	**5.9100e-003**	**0.2037**		**650.2250**	**650.2250**	**0.0462**	**0.0307**	**660.5383**

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	5/1/2027	5/31/2027	5	21	
2	Grading	Grading	6/1/2027	6/30/2027	5	22	
3	Building Construction	Building Construction	7/1/2027	3/15/2028	5	185	
4	Paving	Paving	3/16/2028	4/7/2028	5	17	
5	Architectural Coating	Architectural Coating	4/8/2028	4/28/2028	5	15	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 16.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 7,500; Non-Residential Outdoor: 2,500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	126.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	88.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	2.00	1.00	740.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	34.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0116	0.7387	0.2153	3.1800e-003	0.1050	5.4300e-003	0.1104	0.0288	5.2000e-003	0.0340		351.0861	351.0861	0.0213	0.0559	368.2597
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0381**	**0.7543**	**0.4601**	**3.9900e-003**	**0.2167**	**5.9400e-003**	**0.2227**	**0.0584**	**5.6700e-003**	**0.0641**		**433.4431**	**433.4431**	**0.0229**	**0.0577**	**451.2146**

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0116	0.7387	0.2153	3.1800e-003	0.1050	5.4300e-003	0.1104	0.0288	5.2000e-003	0.0340		351.0861	351.0861	0.0213	0.0559	368.2597
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0381**	**0.7543**	**0.4601**	**3.9900e-003**	**0.2167**	**5.9400e-003**	**0.2227**	**0.0584**	**5.6700e-003**	**0.0641**		**433.4431**	**433.4431**	**0.0229**	**0.0577**	**451.2146**

3.3 Grading - 2027

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**5.3119**	**0.3484**	**5.6603**	**2.5686**	**0.3205**	**2.8891**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
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	0.0212	0.0125	0.1958	6.5000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		65.8856	65.8856	1.3300e-003	1.4900e-003	66.3639
Total	**0.0289**	**0.5050**	**0.3394**	**2.7700e-003**	**0.1594**	**4.0300e-003**	**0.1634**	**0.0429**	**3.8400e-003**	**0.0467**		**299.9430**	**299.9430**	**0.0155**	**0.0387**	**311.8704**

3.3 Grading - 2027

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.698 7	1,364.698 7	0.4414		1,375.732 9
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.9681**	**0.3484**	**2.3164**	**0.9517**	**0.3205**	**1.2722**	**0.0000**	**1,364.698 7**	**1,364.698 7**	**0.4414**		**1,375.732 9**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
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	0.0212	0.0125	0.1958	6.5000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		65.8856	65.8856	1.3300e-003	1.4900e-003	66.3639
Total	**0.0289**	**0.5050**	**0.3394**	**2.7700e-003**	**0.1594**	**4.0300e-003**	**0.1634**	**0.0429**	**3.8400e-003**	**0.0467**		**299.9430**	**299.9430**	**0.0155**	**0.0387**	**311.8704**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.571 1	1,105.571 1	0.3576		1,114.510 2
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.571 1**	**1,105.571 1**	**0.3576**		**1,114.510 2**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
Vendor	9.7000e-004	0.0376	0.0140	1.7000e-004	6.4000e-003	2.1000e-004	6.6200e-003	1.8400e-003	2.0000e-004	2.0500e-003		18.2771	18.2771	6.6000e-004	2.6600e-003	19.0864
Worker	5.2900e-003	3.1200e-003	0.0490	1.6000e-004	0.0224	1.0000e-004	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		16.4714	16.4714	3.3000e-004	3.7000e-004	16.5910
Total	**0.0140**	**0.5332**	**0.2065**	**2.4500e-003**	**0.0987**	**3.9300e-003**	**0.1027**	**0.0270**	**3.7600e-003**	**0.0307**		**268.8059**	**268.8059**	**0.0152**	**0.0403**	**281.1838**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
Vendor	9.7000e-004	0.0376	0.0140	1.7000e-004	6.4000e-003	2.1000e-004	6.6200e-003	1.8400e-003	2.0000e-004	2.0500e-003		18.2771	18.2771	6.6000e-004	2.6600e-003	19.0864
Worker	5.2900e-003	3.1200e-003	0.0490	1.6000e-004	0.0224	1.0000e-004	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		16.4714	16.4714	3.3000e-004	3.7000e-004	16.5910
Total	**0.0140**	**0.5332**	**0.2065**	**2.4500e-003**	**0.0987**	**3.9300e-003**	**0.1027**	**0.0270**	**3.7600e-003**	**0.0307**		**268.8059**	**268.8059**	**0.0152**	**0.0403**	**281.1838**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
Vendor	9.5000e-004	0.0373	0.0139	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0500e-003		17.9229	17.9229	6.6000e-004	2.6100e-003	18.7173
Worker	5.0100e-003	2.8800e-003	0.0466	1.6000e-004	0.0224	9.0000e-005	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		16.0500	16.0500	3.1000e-004	3.6000e-004	16.1640
Total	**0.0136**	**0.5276**	**0.2051**	**2.4000e-003**	**0.0987**	**3.8900e-003**	**0.1026**	**0.0270**	**3.7300e-003**	**0.0307**		**263.1928**	**263.1928**	**0.0152**	**0.0394**	**275.3256**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
Vendor	9.5000e-004	0.0373	0.0139	1.7000e-004	6.4000e-003	2.1000e-004	6.6100e-003	1.8400e-003	2.0000e-004	2.0500e-003		17.9229	17.9229	6.6000e-004	2.6100e-003	18.7173
Worker	5.0100e-003	2.8800e-003	0.0466	1.6000e-004	0.0224	9.0000e-005	0.0225	5.9300e-003	9.0000e-005	6.0200e-003		16.0500	16.0500	3.1000e-004	3.6000e-004	16.1640
Total	**0.0136**	**0.5276**	**0.2051**	**2.4000e-003**	**0.0987**	**3.8900e-003**	**0.1026**	**0.0270**	**3.7300e-003**	**0.0307**		**263.1928**	**263.1928**	**0.0152**	**0.0394**	**275.3256**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	3.8400e-003	0.2437	0.0723	1.0400e-003	0.0350	1.8000e-003	0.0368	9.5900e-003	1.7200e-003	0.0113		114.6100	114.6100	7.1100e-003	0.0182	120.2221
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	0.0451	0.0259	0.4193	1.4300e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		144.4499	144.4499	2.7500e-003	3.2100e-003	145.4758
Total	**0.0490**	**0.2696**	**0.4916**	**2.4700e-003**	**0.2362**	**2.6500e-003**	**0.2388**	**0.0630**	**2.5000e-003**	**0.0655**		**259.0599**	**259.0599**	**9.8600e-003**	**0.0215**	**265.6979**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	3.8400e-003	0.2437	0.0723	1.0400e-003	0.0350	1.8000e-003	0.0368	9.5900e-003	1.7200e-003	0.0113		114.6100	114.6100	7.1100e-003	0.0182	120.2221
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	0.0451	0.0259	0.4193	1.4300e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		144.4499	144.4499	2.7500e-003	3.2100e-003	145.4758
Total	**0.0490**	**0.2696**	**0.4916**	**2.4700e-003**	**0.2362**	**2.6500e-003**	**0.2388**	**0.0630**	**2.5000e-003**	**0.0655**		**259.0599**	**259.0599**	**9.8600e-003**	**0.0215**	**265.6979**

3.6 Architectural Coating - 2028

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					
Archit. Coating	1.5450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**1.7159**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2028

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					
Archit. Coating	1.5450					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**1.7159**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3295	0.3264	2.8951	6.0900e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0800e-003	0.2018		621.2795	621.2795	0.0456	0.0302	631.4208
Unmitigated	0.3295	0.3264	2.8951	6.0900e-003	0.7421	4.3800e-003	0.7465	0.1978	4.0800e-003	0.2018		621.2795	621.2795	0.0456	0.0302	631.4208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	164.65	104.35	133.65	324,253	324,253
Total	164.65	104.35	133.65	324,253	324,253

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
Health Club	16.60	8.40	6.90	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
NaturalGas Unmitigated	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164

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					
Health Club	246.027	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Total		**2.6500e-003**	**0.0241**	**0.0203**	**1.4000e-004**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**		**28.9444**	**28.9444**	**5.5000e-004**	**5.3000e-004**	**29.1164**

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					
Health Club	0.246027	2.6500e-003	0.0241	0.0203	1.4000e-004		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003		28.9444	28.9444	5.5000e-004	5.3000e-004	29.1164
Total		**2.6500e-003**	**0.0241**	**0.0203**	**1.4000e-004**		**1.8300e-003**	**1.8300e-003**		**1.8300e-003**	**1.8300e-003**		**28.9444**	**28.9444**	**5.5000e-004**	**5.3000e-004**	**29.1164**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

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	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

Walter Pyramid Renovation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	1.00	1000sqft	0.32	1,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2028

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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	100.00	284.00
tblConstructionPhase	NumDays	10.00	32.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	5.00	21.00
tblTripsAndVMT	HaulingTripNumber	0.00	256.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,136.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2027	0.0547	0.5708	0.6131	1.2600e-003	0.0968	0.0227	0.1196	0.0449	0.0210	0.0659	0.0000	112.9449	112.9449	0.0286	2.9900e-003	114.5500
2028	0.0592	0.5841	0.7221	1.3400e-003	8.0600e-003	0.0242	0.0322	2.2000e-003	0.0223	0.0245	0.0000	119.4125	119.4125	0.0324	2.9100e-003	121.0890
Maximum	**0.0592**	**0.5841**	**0.7221**	**1.3400e-003**	**0.0968**	**0.0242**	**0.1196**	**0.0449**	**0.0223**	**0.0659**	**0.0000**	**119.4125**	**119.4125**	**0.0324**	**2.9900e-003**	**121.0890**

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					
2027	0.0547	0.5708	0.6131	1.2600e-003	0.0417	0.0227	0.0644	0.0182	0.0210	0.0392	0.0000	112.9448	112.9448	0.0286	2.9900e-003	114.5499
2028	0.0592	0.5841	0.7221	1.3400e-003	8.0600e-003	0.0242	0.0322	2.2000e-003	0.0223	0.0245	0.0000	119.4123	119.4123	0.0324	2.9100e-003	121.0888
Maximum	**0.0592**	**0.5841**	**0.7221**	**1.3400e-003**	**0.0417**	**0.0242**	**0.0644**	**0.0182**	**0.0223**	**0.0392**	**0.0000**	**119.4123**	**119.4123**	**0.0324**	**2.9900e-003**	**121.0888**

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**	**52.59**	**0.00**	**36.35**	**56.67**	**0.00**	**29.50**	**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	**5-1-2027**	**7-31-2027**	0.2662	0.2662
2	**8-1-2027**	**10-31-2027**	0.2142	0.2142
3	**11-1-2027**	**1-31-2028**	0.2146	0.2146
4	**2-1-2028**	**4-30-2028**	0.2096	0.2096
5	**5-1-2028**	**7-31-2028**	0.2138	0.2138
6	**8-1-2028**	**9-30-2028**	0.1301	0.1301
		Highest	0.2662	0.2662

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	4.0800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	2.8844	2.8844	1.8000e-004	4.0000e-005	2.9000
Mobile	3.8500e-003	3.9200e-003	0.0347	7.0000e-005	8.7000e-003	5.0000e-005	8.7600e-003	2.3200e-003	5.0000e-005	2.3700e-003	0.0000	6.8015	6.8015	4.9000e-004	3.3000e-004	6.9114
Waste						0.0000	0.0000		0.0000	0.0000	6.0900e-003	0.0000	6.0900e-003	3.6000e-004	0.0000	0.0151
Water						0.0000	0.0000		0.0000	0.0000	0.1367	1.0489	1.1856	0.0141	3.4000e-004	1.6407
Total	**8.0300e-003**	**4.8000e-003**	**0.0355**	**8.0000e-005**	**8.7000e-003**	**1.2000e-004**	**8.8300e-003**	**2.3200e-003**	**1.2000e-004**	**2.4400e-003**	**0.1428**	**10.7348**	**10.8776**	**0.0152**	**7.1000e-004**	**11.4672**

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	4.0800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	2.8844	2.8844	1.8000e-004	4.0000e-005	2.9000
Mobile	3.8500e-003	3.9200e-003	0.0347	7.0000e-005	8.7000e-003	5.0000e-005	8.7600e-003	2.3200e-003	5.0000e-005	2.3700e-003	0.0000	6.8015	6.8015	4.9000e-004	3.3000e-004	6.9114
Waste						0.0000	0.0000		0.0000	0.0000	6.0900e-003	0.0000	6.0900e-003	3.6000e-004	0.0000	0.0151
Water						0.0000	0.0000		0.0000	0.0000	0.1367	1.0489	1.1856	0.0141	3.4000e-004	1.6407
Total	**8.0300e-003**	**4.8000e-003**	**0.0355**	**8.0000e-005**	**8.7000e-003**	**1.2000e-004**	**8.8300e-003**	**2.3200e-003**	**1.2000e-004**	**2.4400e-003**	**0.1428**	**10.7348**	**10.8776**	**0.0152**	**7.1000e-004**	**11.4672**

	ROG	NOx	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	5/1/2027	6/15/2027	5	32	
2	Grading	Grading	6/16/2027	7/30/2027	5	33	
3	Building Construction	Building Construction	7/31/2027	8/31/2028	5	284	

4	Paving	Paving	9/1/2028	9/29/2028	5	21	
5	Architectural Coating	Architectural Coating	9/30/2028	10/31/2028	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	4	10.00	0.00	256.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	1,136.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	9.1900e-003	0.0816	0.1178	1.9000e-004		3.3600e-003	3.3600e-003		3.2100e-003	3.2100e-003	0.0000	16.6794	16.6794	2.9900e-003	0.0000	16.7542
Total	**9.1900e-003**	**0.0816**	**0.1178**	**1.9000e-004**	**0.0000**	**3.3600e-003**	**3.3600e-003**	**0.0000**	**3.2100e-003**	**3.2100e-003**	**0.0000**	**16.6794**	**16.6794**	**2.9900e-003**	**0.0000**	**16.7542**

3.2 Demolition - 2027

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-004	0.0159	4.5600e-003	7.0000e-005	2.2000e-003	1.2000e-004	2.3200e-003	6.0000e-004	1.1000e-004	7.2000e-004	0.0000	6.7900	6.7900	4.1000e-004	1.0800e-003	7.1222
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	3.9000e-004	2.6000e-004	4.0200e-003	1.0000e-005	1.7600e-003	1.0000e-005	1.7600e-003	4.7000e-004	1.0000e-005	4.7000e-004	0.0000	1.2136	1.2136	2.0000e-005	3.0000e-005	1.2224
Total	**6.5000e-004**	**0.0161**	**8.5800e-003**	**8.0000e-005**	**3.9600e-003**	**1.3000e-004**	**4.0800e-003**	**1.0700e-003**	**1.2000e-004**	**1.1900e-003**	**0.0000**	**8.0036**	**8.0036**	**4.3000e-004**	**1.1100e-003**	**8.3446**

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	9.1900e-003	0.0816	0.1178	1.9000e-004		3.3600e-003	3.3600e-003		3.2100e-003	3.2100e-003	0.0000	16.6794	16.6794	2.9900e-003	0.0000	16.7542
Total	**9.1900e-003**	**0.0816**	**0.1178**	**1.9000e-004**	**0.0000**	**3.3600e-003**	**3.3600e-003**	**0.0000**	**3.2100e-003**	**3.2100e-003**	**0.0000**	**16.6794**	**16.6794**	**2.9900e-003**	**0.0000**	**16.7542**

3.2 Demolition - 2027

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-004	0.0159	4.5600e-003	7.0000e-005	2.2000e-003	1.2000e-004	2.3200e-003	6.0000e-004	1.1000e-004	7.2000e-004	0.0000	6.7900	6.7900	4.1000e-004	1.0800e-003	7.1222
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	3.9000e-004	2.6000e-004	4.0200e-003	1.0000e-005	1.7600e-003	1.0000e-005	1.7600e-003	4.7000e-004	1.0000e-005	4.7000e-004	0.0000	1.2136	1.2136	2.0000e-005	3.0000e-005	1.2224
Total	**6.5000e-004**	**0.0161**	**8.5800e-003**	**8.0000e-005**	**3.9600e-003**	**1.3000e-004**	**4.0800e-003**	**1.0700e-003**	**1.2000e-004**	**1.1900e-003**	**0.0000**	**8.0036**	**8.0036**	**4.3000e-004**	**1.1100e-003**	**8.3446**

3.3 Grading - 2027

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					0.0877	0.0000	0.0877	0.0424	0.0000	0.0424	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1441	0.0890	2.3000e-004		5.7500e-003	5.7500e-003		5.2900e-003	5.2900e-003	0.0000	20.4276	20.4276	6.6100e-003	0.0000	20.5927
Total	**0.0138**	**0.1441**	**0.0890**	**2.3000e-004**	**0.0877**	**5.7500e-003**	**0.0934**	**0.0424**	**5.2900e-003**	**0.0477**	**0.0000**	**20.4276**	**20.4276**	**6.6100e-003**	**0.0000**	**20.5927**

3.3 Grading - 2027

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	3.2000e-004	2.1000e-004	3.3200e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0012	1.0012	2.0000e-005	2.0000e-005	1.0085
Total	**3.2000e-004**	**2.1000e-004**	**3.3200e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0012**	**1.0012**	**2.0000e-005**	**2.0000e-005**	**1.0085**

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					0.0325	0.0000	0.0325	0.0157	0.0000	0.0157	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0138	0.1441	0.0890	2.3000e-004		5.7500e-003	5.7500e-003		5.2900e-003	5.2900e-003	0.0000	20.4275	20.4275	6.6100e-003	0.0000	20.5927
Total	**0.0138**	**0.1441**	**0.0890**	**2.3000e-004**	**0.0325**	**5.7500e-003**	**0.0382**	**0.0157**	**5.2900e-003**	**0.0210**	**0.0000**	**20.4275**	**20.4275**	**6.6100e-003**	**0.0000**	**20.5927**

3.3 Grading - 2027

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	3.2000e-004	2.1000e-004	3.3200e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0012	1.0012	2.0000e-005	2.0000e-005	1.0085
Total	**3.2000e-004**	**2.1000e-004**	**3.3200e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.0012**	**1.0012**	**2.0000e-005**	**2.0000e-005**	**1.0085**

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0303	0.3015	0.3866	6.3000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	55.1627	55.1627	0.0178	0.0000	55.6087
Total	**0.0303**	**0.3015**	**0.3866**	**6.3000e-004**		**0.0133**	**0.0133**		**0.0122**	**0.0122**	**0.0000**	**55.1627**	**55.1627**	**0.0178**	**0.0000**	**55.6087**

3.4 Building Construction - 2027

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	4.4000e-004	0.0272	7.8300e-003	1.2000e-004	3.7900e-003	2.0000e-004	3.9900e-003	1.0400e-003	1.9000e-004	1.2300e-003	0.0000	11.6704	11.6704	7.1000e-004	1.8600e-003	12.2413
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	0.0000	0.0000	0.0000	0.0000	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	**4.4000e-004**	**0.0272**	**7.8300e-003**	**1.2000e-004**	**3.7900e-003**	**2.0000e-004**	**3.9900e-003**	**1.0400e-003**	**1.9000e-004**	**1.2300e-003**	**0.0000**	**11.6704**	**11.6704**	**7.1000e-004**	**1.8600e-003**	**12.2413**

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	0.0303	0.3015	0.3866	6.3000e-004		0.0133	0.0133		0.0122	0.0122	0.0000	55.1626	55.1626	0.0178	0.0000	55.6086
Total	**0.0303**	**0.3015**	**0.3866**	**6.3000e-004**		**0.0133**	**0.0133**		**0.0122**	**0.0122**	**0.0000**	**55.1626**	**55.1626**	**0.0178**	**0.0000**	**55.6086**

3.4 Building Construction - 2027

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	4.4000e-004	0.0272	7.8300e-003	1.2000e-004	3.7900e-003	2.0000e-004	3.9900e-003	1.0400e-003	1.9000e-004	1.2300e-003	0.0000	11.6704	11.6704	7.1000e-004	1.8600e-003	12.2413
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	0.0000	0.0000	0.0000	0.0000	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	**4.4000e-004**	**0.0272**	**7.8300e-003**	**1.2000e-004**	**3.7900e-003**	**2.0000e-004**	**3.9900e-003**	**1.0400e-003**	**1.9000e-004**	**1.2300e-003**	**0.0000**	**11.6704**	**11.6704**	**7.1000e-004**	**1.8600e-003**	**12.2413**

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4769	0.6115	9.9000e-004		0.0210	0.0210		0.0193	0.0193	0.0000	87.2573	87.2573	0.0282	0.0000	87.9628
Total	**0.0479**	**0.4769**	**0.6115**	**9.9000e-004**		**0.0210**	**0.0210**		**0.0193**	**0.0193**	**0.0000**	**87.2573**	**87.2573**	**0.0282**	**0.0000**	**87.9628**

3.4 Building Construction - 2028

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	7.0000e-004	0.0427	0.0125	1.8000e-004	5.9900e-003	3.1000e-004	6.3000e-003	1.6400e-003	3.0000e-004	1.9400e-003	0.0000	18.0788	18.0788	1.1200e-003	2.8800e-003	18.9641
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	0.0000	0.0000	0.0000	0.0000	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	**7.0000e-004**	**0.0427**	**0.0125**	**1.8000e-004**	**5.9900e-003**	**3.1000e-004**	**6.3000e-003**	**1.6400e-003**	**3.0000e-004**	**1.9400e-003**	**0.0000**	**18.0788**	**18.0788**	**1.1200e-003**	**2.8800e-003**	**18.9641**

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	0.0479	0.4769	0.6115	9.9000e-004		0.0210	0.0210		0.0193	0.0193	0.0000	87.2572	87.2572	0.0282	0.0000	87.9627
Total	**0.0479**	**0.4769**	**0.6115**	**9.9000e-004**		**0.0210**	**0.0210**		**0.0193**	**0.0193**	**0.0000**	**87.2572**	**87.2572**	**0.0282**	**0.0000**	**87.9627**

3.4 Building Construction - 2028

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	7.0000e-004	0.0427	0.0125	1.8000e-004	5.9900e-003	3.1000e-004	6.3000e-003	1.6400e-003	3.0000e-004	1.9400e-003	0.0000	18.0788	18.0788	1.1200e-003	2.8800e-003	18.9641
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	0.0000	0.0000	0.0000	0.0000	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	**7.0000e-004**	**0.0427**	**0.0125**	**1.8000e-004**	**5.9900e-003**	**3.1000e-004**	**6.3000e-003**	**1.6400e-003**	**3.0000e-004**	**1.9400e-003**	**0.0000**	**18.0788**	**18.0788**	**1.1200e-003**	**2.8800e-003**	**18.9641**

3.5 Paving - 2028

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	5.9200e-003	0.0517	0.0738	1.2000e-004		2.3000e-003	2.3000e-003		2.1500e-003	2.1500e-003	0.0000	9.8709	9.8709	2.8800e-003	0.0000	9.9428
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9200e-003**	**0.0517**	**0.0738**	**1.2000e-004**		**2.3000e-003**	**2.3000e-003**		**2.1500e-003**	**2.1500e-003**	**0.0000**	**9.8709**	**9.8709**	**2.8800e-003**	**0.0000**	**9.9428**

3.5 Paving - 2028

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	4.3000e-004	2.8000e-004	4.5200e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0800e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.3969	1.3969	3.0000e-005	3.0000e-005	1.4068
Total	**4.3000e-004**	**2.8000e-004**	**4.5200e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0800e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.3969**	**1.3969**	**3.0000e-005**	**3.0000e-005**	**1.4068**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.9200e-003	0.0517	0.0738	1.2000e-004		2.3000e-003	2.3000e-003		2.1500e-003	2.1500e-003	0.0000	9.8709	9.8709	2.8800e-003	0.0000	9.9428
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.9200e-003**	**0.0517**	**0.0738**	**1.2000e-004**		**2.3000e-003**	**2.3000e-003**		**2.1500e-003**	**2.1500e-003**	**0.0000**	**9.8709**	**9.8709**	**2.8800e-003**	**0.0000**	**9.9428**

3.5 Paving - 2028

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	4.3000e-004	2.8000e-004	4.5200e-003	2.0000e-005	2.0700e-003	1.0000e-005	2.0800e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.3969	1.3969	3.0000e-005	3.0000e-005	1.4068
Total	**4.3000e-004**	**2.8000e-004**	**4.5200e-003**	**2.0000e-005**	**2.0700e-003**	**1.0000e-005**	**2.0800e-003**	**5.5000e-004**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**1.3969**	**1.3969**	**3.0000e-005**	**3.0000e-005**	**1.4068**

3.6 Architectural Coating - 2028

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					
Archit. Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8800e-003	0.0126	0.0199	3.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	2.8086	2.8086	1.5000e-004	0.0000	2.8124
Total	**4.2000e-003**	**0.0126**	**0.0199**	**3.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**2.8086**	**2.8086**	**1.5000e-004**	**0.0000**	**2.8124**

3.6 Architectural Coating - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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					
Archit. Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8800e-003	0.0126	0.0199	3.0000e-005		5.7000e-004	5.7000e-004		5.7000e-004	5.7000e-004	0.0000	2.8086	2.8086	1.5000e-004	0.0000	2.8124
Total	**4.2000e-003**	**0.0126**	**0.0199**	**3.0000e-005**		**5.7000e-004**	**5.7000e-004**		**5.7000e-004**	**5.7000e-004**	**0.0000**	**2.8086**	**2.8086**	**1.5000e-004**	**0.0000**	**2.8124**

3.6 Architectural Coating - 2028

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	0.0000	0.0000	0.0000	0.0000	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**	**0.0000**	**0.0000**

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	3.8500e-003	3.9200e-003	0.0347	7.0000e-005	8.7000e-003	5.0000e-005	8.7600e-003	2.3200e-003	5.0000e-005	2.3700e-003	0.0000	6.8015	6.8015	4.9000e-004	3.3000e-004	6.9114
Unmitigated	3.8500e-003	3.9200e-003	0.0347	7.0000e-005	8.7000e-003	5.0000e-005	8.7600e-003	2.3200e-003	5.0000e-005	2.3700e-003	0.0000	6.8015	6.8015	4.9000e-004	3.3000e-004	6.9114

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	10.71	10.71	10.71	23,118	23,118
Total	10.71	10.71	10.71	23,118	23,118

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
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

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	1.9260	1.9260	1.6000e-004	2.0000e-005	1.9359
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1.9260	1.9260	1.6000e-004	2.0000e-005	1.9359
NaturalGas Mitigated	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9584	0.9584	2.0000e-005	2.0000e-005	0.9641
NaturalGas Unmitigated	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9584	0.9584	2.0000e-005	2.0000e-005	0.9641

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					
Arena	17960	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9584	0.9584	2.0000e-005	2.0000e-005	0.9641
Total		**1.0000e-004**	**8.8000e-004**	**7.4000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9584**	**0.9584**	**2.0000e-005**	**2.0000e-005**	**0.9641**

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					
Arena	17960	1.0000e-004	8.8000e-004	7.4000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9584	0.9584	2.0000e-005	2.0000e-005	0.9641
Total		**1.0000e-004**	**8.8000e-004**	**7.4000e-004**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**0.9584**	**0.9584**	**2.0000e-005**	**2.0000e-005**	**0.9641**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	10860	1.9260	1.6000e-004	2.0000e-005	1.9359
Total		**1.9260**	**1.6000e-004**	**2.0000e-005**	**1.9359**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	10860	1.9260	1.6000e-004	2.0000e-005	1.9359
Total		**1.9260**	**1.6000e-004**	**2.0000e-005**	**1.9359**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.0800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	4.0800e-003	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-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	4.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**4.0700e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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	4.6000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.6100e-003					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**4.0700e-003**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.1856	0.0141	3.4000e-004	1.6407
Unmitigated	1.1856	0.0141	3.4000e-004	1.6407

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.43077 / 0.027496	1.1856	0.0141	3.4000e-004	1.6407
Total		**1.1856**	**0.0141**	**3.4000e-004**	**1.6407**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	0.43077 / 0.027496	1.1856	0.0141	3.4000e-004	1.6407
Total		**1.1856**	**0.0141**	**3.4000e-004**	**1.6407**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.0900e-003	3.6000e-004	0.0000	0.0151
Unmitigated	6.0900e-003	3.6000e-004	0.0000	0.0151

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Total		**6.0900e-003**	**3.6000e-004**	**0.0000**	**0.0151**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.03	6.0900e-003	3.6000e-004	0.0000	0.0151
Total		**6.0900e-003**	**3.6000e-004**	**0.0000**	**0.0151**

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

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

Walter Pyramid Renovation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	1.00	1000sqft	0.32	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	100.00	284.00
tblConstructionPhase	NumDays	10.00	32.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	5.00	21.00
tblTripsAndVMT	HaulingTripNumber	0.00	256.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,136.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	0.8548	8.7455	7.9173	0.0171	5.4014	0.3488	5.7501	2.5923	0.3209	2.9131	0.0000	1,704.0985	1,704.0985	0.4427	0.0761	1,732.6888
2028	0.6059	5.9470	7.4880	0.0135	0.2012	0.2448	0.4207	0.0534	0.2254	0.2587	0.0000	1,334.5200	1,334.5200	0.3718	0.0364	1,354.6711
Maximum	**0.8548**	**8.7455**	**7.9173**	**0.0171**	**5.4014**	**0.3488**	**5.7501**	**2.5923**	**0.3209**	**2.9131**	**0.0000**	**1,704.0985**	**1,704.0985**	**0.4427**	**0.0761**	**1,732.6888**

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					
2027	0.8548	8.7455	7.9173	0.0171	2.0575	0.3488	2.4063	0.9754	0.3209	1.2962	0.0000	1,704.0985	1,704.0985	0.4427	0.0761	1,732.6888
2028	0.6059	5.9470	7.4880	0.0135	0.2012	0.2448	0.4207	0.0534	0.2254	0.2587	0.0000	1,334.5200	1,334.5200	0.3718	0.0364	1,354.6711
Maximum	**0.8548**	**8.7455**	**7.9173**	**0.0171**	**2.0575**	**0.3488**	**2.4063**	**0.9754**	**0.3209**	**1.2962**	**0.0000**	**1,704.0985**	**1,704.0985**	**0.4427**	**0.0761**	**1,732.6888**

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	59.68	0.00	54.19	61.12	0.00	50.98	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Mobile	0.0226	0.0199	0.1921	4.2000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		42.6855	42.6855	2.8800e-003	1.9000e-003	43.3248
Total	**0.0455**	**0.0247**	**0.1962**	**4.5000e-004**	**0.0487**	**6.6000e-004**	**0.0494**	**0.0130**	**6.4000e-004**	**0.0136**		**48.4746**	**48.4746**	**2.9900e-003**	**2.0100e-003**	**49.1483**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Mobile	0.0226	0.0199	0.1921	4.2000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		42.6855	42.6855	2.8800e-003	1.9000e-003	43.3248
Total	**0.0455**	**0.0247**	**0.1962**	**4.5000e-004**	**0.0487**	**6.6000e-004**	**0.0494**	**0.0130**	**6.4000e-004**	**0.0136**		**48.4746**	**48.4746**	**2.9900e-003**	**2.0100e-003**	**49.1483**

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	5/1/2027	6/15/2027	5	32	
2	Grading	Grading	6/16/2027	7/30/2027	5	33	
3	Building Construction	Building Construction	7/31/2027	8/31/2028	5	284	
4	Paving	Paving	9/1/2028	9/29/2028	5	21	
5	Architectural Coating	Architectural Coating	9/30/2028	10/31/2028	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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

Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	4	10.00	0.00	256.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	1,136.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0166	0.9399	0.2833	4.2300e-003	0.1399	7.2300e-003	0.1472	0.0384	6.9200e-003	0.0453		467.5661	467.5661	0.0284	0.0744	490.4394
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0414**	**0.9542**	**0.5532**	**5.0900e-003**	**0.2517**	**7.7400e-003**	**0.2594**	**0.0680**	**7.3900e-003**	**0.0754**		**554.9790**	**554.9790**	**0.0300**	**0.0761**	**578.4183**

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0166	0.9399	0.2833	4.2300e-003	0.1399	7.2300e-003	0.1472	0.0384	6.9200e-003	0.0453		467.5661	467.5661	0.0284	0.0744	490.4394
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	0.0248	0.0143	0.2699	8.6000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		87.4129	87.4129	1.6300e-003	1.7600e-003	87.9789
Total	**0.0414**	**0.9542**	**0.5532**	**5.0900e-003**	**0.2517**	**7.7400e-003**	**0.2594**	**0.0680**	**7.3900e-003**	**0.0754**		**554.9790**	**554.9790**	**0.0300**	**0.0761**	**578.4183**

3.3 Grading - 2027

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**5.3119**	**0.3484**	**5.6603**	**2.5686**	**0.3205**	**2.8891**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

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	0.0198	0.0114	0.2160	6.9000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		69.9304	69.9304	1.3000e-003	1.4100e-003	70.3832
Total	**0.0198**	**0.0114**	**0.2160**	**6.9000e-004**	**0.0894**	**4.1000e-004**	**0.0898**	**0.0237**	**3.7000e-004**	**0.0241**		**69.9304**	**69.9304**	**1.3000e-003**	**1.4100e-003**	**70.3832**

3.3 Grading - 2027

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.698 7	1,364.698 7	0.4414		1,375.732 9
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.9681**	**0.3484**	**2.3164**	**0.9517**	**0.3205**	**1.2722**	**0.0000**	**1,364.698 7**	**1,364.698 7**	**0.4414**		**1,375.732 9**

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	0.0198	0.0114	0.2160	6.9000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		69.9304	69.9304	1.3000e-003	1.4100e-003	70.3832
Total	**0.0198**	**0.0114**	**0.2160**	**6.9000e-004**	**0.0894**	**4.1000e-004**	**0.0898**	**0.0237**	**3.7000e-004**	**0.0241**		**69.9304**	**69.9304**	**1.3000e-003**	**1.4100e-003**	**70.3832**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
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	0.0000	0.0000	0.0000	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	**8.3200e-003**	**0.4699**	**0.1416**	**2.1200e-003**	**0.0700**	**3.6200e-003**	**0.0736**	**0.0192**	**3.4600e-003**	**0.0226**		**233.7830**	**233.7830**	**0.0142**	**0.0372**	**245.2197**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.3200e-003	0.4699	0.1416	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4600e-003	0.0226		233.7830	233.7830	0.0142	0.0372	245.2197
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	0.0000	0.0000	0.0000	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	**8.3200e-003**	**0.4699**	**0.1416**	**2.1200e-003**	**0.0700**	**3.6200e-003**	**0.0736**	**0.0192**	**3.4600e-003**	**0.0226**		**233.7830**	**233.7830**	**0.0142**	**0.0372**	**245.2197**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
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	0.0000	0.0000	0.0000	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	**8.2500e-003**	**0.4651**	**0.1427**	**2.0700e-003**	**0.0700**	**3.5900e-003**	**0.0736**	**0.0192**	**3.4300e-003**	**0.0226**		**228.9489**	**228.9489**	**0.0143**	**0.0364**	**240.1610**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	8.2500e-003	0.4651	0.1427	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4300e-003	0.0226		228.9489	228.9489	0.0143	0.0364	240.1610
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	0.0000	0.0000	0.0000	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	**8.2500e-003**	**0.4651**	**0.1427**	**2.0700e-003**	**0.0700**	**3.5900e-003**	**0.0736**	**0.0192**	**3.4300e-003**	**0.0226**		**228.9489**	**228.9489**	**0.0143**	**0.0364**	**240.1610**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	0.0421	0.0237	0.4622	1.5200e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		153.3173	153.3173	2.6900e-003	3.0300e-003	154.2885
Total	**0.0421**	**0.0237**	**0.4622**	**1.5200e-003**	**0.2012**	**8.5000e-004**	**0.2021**	**0.0534**	**7.8000e-004**	**0.0541**		**153.3173**	**153.3173**	**2.6900e-003**	**3.0300e-003**	**154.2885**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	0.0421	0.0237	0.4622	1.5200e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		153.3173	153.3173	2.6900e-003	3.0300e-003	154.2885
Total	**0.0421**	**0.0237**	**0.4622**	**1.5200e-003**	**0.2012**	**8.5000e-004**	**0.2021**	**0.0534**	**7.8000e-004**	**0.0541**		**153.3173**	**153.3173**	**2.6900e-003**	**3.0300e-003**	**154.2885**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.2107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**0.3815**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.2107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**0.3815**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	0.0226	0.0199	0.1921	4.2000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		42.6855	42.6855	2.8800e-003	1.9000e-003	43.3248
Unmitigated	0.0226	0.0199	0.1921	4.2000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		42.6855	42.6855	2.8800e-003	1.9000e-003	43.3248

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	10.71	10.71	10.71	23,118	23,118
Total	10.71	10.71	10.71	23,118	23,118

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
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
NaturalGas Unmitigated	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233

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					
Arena	49.2055	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Total		**5.3000e-004**	**4.8200e-003**	**4.0500e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.7889**	**5.7889**	**1.1000e-004**	**1.1000e-004**	**5.8233**

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					
Arena	0.0492055	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Total		**5.3000e-004**	**4.8200e-003**	**4.0500e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.7889**	**5.7889**	**1.1000e-004**	**1.1000e-004**	**5.8233**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	2.5400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0224**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	2.5400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0224**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Walter Pyramid Renovation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	1.00	1000sqft	0.32	1,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2028
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 -

Land Use - per info provided by CSULB; only renovation involved

Construction Phase - per info provided by CSULB

Trips and VMT - # haul trips provided by CSULB

Demolition -

Grading -

Architectural Coating - SCAQMD Rule 1113

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00

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

tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	32.00
tblConstructionPhase	NumDays	2.00	33.00
tblConstructionPhase	NumDays	100.00	284.00
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	PhaseEndDate	5/14/2027	6/15/2027
tblConstructionPhase	PhaseEndDate	5/18/2027	7/30/2027
tblConstructionPhase	PhaseEndDate	10/5/2027	8/31/2028
tblConstructionPhase	PhaseEndDate	10/12/2027	9/29/2028
tblConstructionPhase	PhaseEndDate	10/19/2027	10/31/2028
tblConstructionPhase	PhaseStartDate	5/15/2027	6/16/2027
tblConstructionPhase	PhaseStartDate	5/19/2027	7/31/2027
tblConstructionPhase	PhaseStartDate	10/6/2027	9/1/2028
tblConstructionPhase	PhaseStartDate	10/13/2027	9/30/2028
tblTripsAndVMT	HaulingTripNumber	0.00	256.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,136.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2027	0.8562	8.7466	7.8959	0.0171	5.4014	0.3488	5.7501	2.5923	0.3209	2.9131	0.0000	1,699.5912	1,699.5912	0.4427	0.0763	1,728.2383
2028	0.6089	5.9694	7.4450	0.0135	0.2012	0.2449	0.4207	0.0534	0.2254	0.2587	0.0000	1,334.7910	1,334.7910	0.3718	0.0365	1,354.9544
Maximum	**0.8562**	**8.7466**	**7.8959**	**0.0171**	**5.4014**	**0.3488**	**5.7501**	**2.5923**	**0.3209**	**2.9131**	**0.0000**	**1,699.5912**	**1,699.5912**	**0.4427**	**0.0763**	**1,728.2383**

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					
2027	0.8562	8.7466	7.8959	0.0171	2.0575	0.3488	2.4063	0.9754	0.3209	1.2962	0.0000	1,699.5912	1,699.5912	0.4427	0.0763	1,728.2383
2028	0.6089	5.9694	7.4450	0.0135	0.2012	0.2449	0.4207	0.0534	0.2254	0.2587	0.0000	1,334.7910	1,334.7910	0.3718	0.0365	1,354.9544
Maximum	**0.8562**	**8.7466**	**7.8959**	**0.0171**	**2.0575**	**0.3488**	**2.4063**	**0.9754**	**0.3209**	**1.2962**	**0.0000**	**1,699.5912**	**1,699.5912**	**0.4427**	**0.0763**	**1,728.2383**

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	59.68	0.00	54.19	61.12	0.00	50.98	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Mobile	0.0215	0.0214	0.1896	4.0000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		40.7723	40.7723	2.9900e-003	1.9800e-003	41.4364
Total	**0.0444**	**0.0262**	**0.1938**	**4.3000e-004**	**0.0487**	**6.6000e-004**	**0.0494**	**0.0130**	**6.4000e-004**	**0.0136**		**46.5614**	**46.5614**	**3.1000e-003**	**2.0900e-003**	**47.2599**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Mobile	0.0215	0.0214	0.1896	4.0000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		40.7723	40.7723	2.9900e-003	1.9800e-003	41.4364
Total	**0.0444**	**0.0262**	**0.1938**	**4.3000e-004**	**0.0487**	**6.6000e-004**	**0.0494**	**0.0130**	**6.4000e-004**	**0.0136**		**46.5614**	**46.5614**	**3.1000e-003**	**2.0900e-003**	**47.2599**

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	5/1/2027	6/15/2027	5	32	
2	Grading	Grading	6/16/2027	7/30/2027	5	33	
3	Building Construction	Building Construction	7/31/2027	8/31/2028	5	284	
4	Paving	Paving	9/1/2028	9/29/2028	5	21	
5	Architectural Coating	Architectural Coating	9/30/2028	10/31/2028	5	22	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 24.75

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,500; Non-Residential Outdoor: 500; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Grading	Graders	1	6.00	187	0.41

Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	256.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	0.00	0.00	1,136.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008		1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**		**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0155	0.9850	0.2871	4.2400e-003	0.1399	7.2400e-003	0.1472	0.0384	6.9300e-003	0.0453		468.1148	468.1148	0.0283	0.0745	491.0129
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0420**	**1.0006**	**0.5319**	**5.0500e-003**	**0.2517**	**7.7500e-003**	**0.2595**	**0.0680**	**7.4000e-003**	**0.0754**		**550.4718**	**550.4718**	**0.0300**	**0.0763**	**573.9678**

3.2 Demolition - 2027

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	0.5743	5.1008	7.3641	0.0120		0.2102	0.2102		0.2008	0.2008	0.0000	1,149.1195	1,149.1195	0.2060		1,154.2705
Total	**0.5743**	**5.1008**	**7.3641**	**0.0120**	**0.0000**	**0.2102**	**0.2102**	**0.0000**	**0.2008**	**0.2008**	**0.0000**	**1,149.1195**	**1,149.1195**	**0.2060**		**1,154.2705**

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	0.0155	0.9850	0.2871	4.2400e-003	0.1399	7.2400e-003	0.1472	0.0384	6.9300e-003	0.0453		468.1148	468.1148	0.0283	0.0745	491.0129
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	0.0265	0.0156	0.2448	8.1000e-004	0.1118	5.1000e-004	0.1123	0.0296	4.7000e-004	0.0301		82.3570	82.3570	1.6600e-003	1.8700e-003	82.9549
Total	**0.0420**	**1.0006**	**0.5319**	**5.0500e-003**	**0.2517**	**7.7500e-003**	**0.2595**	**0.0680**	**7.4000e-003**	**0.0754**		**550.4718**	**550.4718**	**0.0300**	**0.0763**	**573.9678**

3.3 Grading - 2027

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					5.3119	0.0000	5.3119	2.5686	0.0000	2.5686			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205		1,364.6987	1,364.6987	0.4414		1,375.7329
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**5.3119**	**0.3484**	**5.6603**	**2.5686**	**0.3205**	**2.8891**		**1,364.6987**	**1,364.6987**	**0.4414**		**1,375.7329**

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	0.0212	0.0125	0.1958	6.5000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		65.8856	65.8856	1.3300e-003	1.4900e-003	66.3639
Total	**0.0212**	**0.0125**	**0.1958**	**6.5000e-004**	**0.0894**	**4.1000e-004**	**0.0898**	**0.0237**	**3.7000e-004**	**0.0241**		**65.8856**	**65.8856**	**1.3300e-003**	**1.4900e-003**	**66.3639**

3.3 Grading - 2027

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					1.9681	0.0000	1.9681	0.9517	0.0000	0.9517			0.0000			0.0000
Off-Road	0.8350	8.7341	5.3948	0.0141		0.3484	0.3484		0.3205	0.3205	0.0000	1,364.698 7	1,364.698 7	0.4414		1,375.732 9
Total	**0.8350**	**8.7341**	**5.3948**	**0.0141**	**1.9681**	**0.3484**	**2.3164**	**0.9517**	**0.3205**	**1.2722**	**0.0000**	**1,364.698 7**	**1,364.698 7**	**0.4414**		**1,375.732 9**

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	0.0212	0.0125	0.1958	6.5000e-004	0.0894	4.1000e-004	0.0898	0.0237	3.7000e-004	0.0241		65.8856	65.8856	1.3300e-003	1.4900e-003	66.3639
Total	**0.0212**	**0.0125**	**0.1958**	**6.5000e-004**	**0.0894**	**4.1000e-004**	**0.0898**	**0.0237**	**3.7000e-004**	**0.0241**		**65.8856**	**65.8856**	**1.3300e-003**	**1.4900e-003**	**66.3639**

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

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
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	0.0000	0.0000	0.0000	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	**7.7400e-003**	**0.4925**	**0.1435**	**2.1200e-003**	**0.0700**	**3.6200e-003**	**0.0736**	**0.0192**	**3.4700e-003**	**0.0226**		**234.0574**	**234.0574**	**0.0142**	**0.0372**	**245.5064**

3.4 Building Construction - 2027

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.7400e-003	0.4925	0.1435	2.1200e-003	0.0700	3.6200e-003	0.0736	0.0192	3.4700e-003	0.0226		234.0574	234.0574	0.0142	0.0372	245.5064
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	0.0000	0.0000	0.0000	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	**7.7400e-003**	**0.4925**	**0.1435**	**2.1200e-003**	**0.0700**	**3.6200e-003**	**0.0736**	**0.0192**	**3.4700e-003**	**0.0226**		**234.0574**	**234.0574**	**0.0142**	**0.0372**	**245.5064**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220		1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**		**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
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	0.0000	0.0000	0.0000	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	**7.6800e-003**	**0.4874**	**0.1446**	**2.0700e-003**	**0.0700**	**3.5900e-003**	**0.0736**	**0.0192**	**3.4400e-003**	**0.0226**		**229.2200**	**229.2200**	**0.0142**	**0.0365**	**240.4443**

3.4 Building Construction - 2028

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	0.5510	5.4820	7.0282	0.0114		0.2413	0.2413		0.2220	0.2220	0.0000	1,105.5711	1,105.5711	0.3576		1,114.5102
Total	**0.5510**	**5.4820**	**7.0282**	**0.0114**		**0.2413**	**0.2413**		**0.2220**	**0.2220**	**0.0000**	**1,105.5711**	**1,105.5711**	**0.3576**		**1,114.5102**

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	7.6800e-003	0.4874	0.1446	2.0700e-003	0.0700	3.5900e-003	0.0736	0.0192	3.4400e-003	0.0226		229.2200	229.2200	0.0142	0.0365	240.4443
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	0.0000	0.0000	0.0000	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	**7.6800e-003**	**0.4874**	**0.1446**	**2.0700e-003**	**0.0700**	**3.5900e-003**	**0.0736**	**0.0192**	**3.4400e-003**	**0.0226**		**229.2200**	**229.2200**	**0.0142**	**0.0365**	**240.4443**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046		1,036.2711	1,036.2711	0.3019		1,043.8179
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**		**1,036.2711**	**1,036.2711**	**0.3019**		**1,043.8179**

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	0.0451	0.0259	0.4193	1.4300e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		144.4499	144.4499	2.7500e-003	3.2100e-003	145.4758
Total	**0.0451**	**0.0259**	**0.4193**	**1.4300e-003**	**0.2012**	**8.5000e-004**	**0.2021**	**0.0534**	**7.8000e-004**	**0.0541**		**144.4499**	**144.4499**	**2.7500e-003**	**3.2100e-003**	**145.4758**

3.5 Paving - 2028

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	0.5638	4.9206	7.0257	0.0113		0.2186	0.2186		0.2046	0.2046	0.0000	1,036.271 1	1,036.271 1	0.3019		1,043.817 9
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.5638**	**4.9206**	**7.0257**	**0.0113**		**0.2186**	**0.2186**		**0.2046**	**0.2046**	**0.0000**	**1,036.271 1**	**1,036.271 1**	**0.3019**		**1,043.817 9**

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	0.0451	0.0259	0.4193	1.4300e-003	0.2012	8.5000e-004	0.2021	0.0534	7.8000e-004	0.0541		144.4499	144.4499	2.7500e-003	3.2100e-003	145.4758
Total	**0.0451**	**0.0259**	**0.4193**	**1.4300e-003**	**0.2012**	**8.5000e-004**	**0.2021**	**0.0534**	**7.8000e-004**	**0.0541**		**144.4499**	**144.4499**	**2.7500e-003**	**3.2100e-003**	**145.4758**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.2107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**0.3815**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

3.6 Architectural Coating - 2028

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					
Archit. Coating	0.2107					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**0.3815**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

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	0.0000	0.0000	0.0000	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**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0215	0.0214	0.1896	4.0000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		40.7723	40.7723	2.9900e-003	1.9800e-003	41.4364
Unmitigated	0.0215	0.0214	0.1896	4.0000e-004	0.0487	2.9000e-004	0.0490	0.0130	2.7000e-004	0.0133		40.7723	40.7723	2.9900e-003	1.9800e-003	41.4364

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	10.71	10.71	10.71	23,118	23,118
Total	10.71	10.71	10.71	23,118	23,118

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
Arena	16.60	8.40	6.90	0.00	81.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.539139	0.063841	0.187327	0.126709	0.023805	0.006751	0.012629	0.009091	0.000821	0.000480	0.025164	0.000758	0.003487

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
NaturalGas Unmitigated	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233

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					
Arena	49.2055	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Total		**5.3000e-004**	**4.8200e-003**	**4.0500e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.7889**	**5.7889**	**1.1000e-004**	**1.1000e-004**	**5.8233**

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					
Arena	0.0492055	5.3000e-004	4.8200e-003	4.0500e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004		5.7889	5.7889	1.1000e-004	1.1000e-004	5.8233
Total		**5.3000e-004**	**4.8200e-003**	**4.0500e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**		**5.7889**	**5.7889**	**1.1000e-004**	**1.1000e-004**	**5.8233**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.0224	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	2.5400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0224**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	2.5400e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.0224**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

CSULB Buildout Operation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	38,165.00	Student	161.03	7,014,630.38	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2035
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 -

Vehicle Trips - Per traffic study

Landscape Equipment - Assume landscaping year-round

Energy Use - Assume same NG consumption as existing conditions

Water And Wastewater - 2035 water consumption is 159.7 MG. Assume half indoor/half outdoor

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblEnergyUse	LightingElect	3.39	2.26
tblEnergyUse	NT24E	3.59	2.39
tblEnergyUse	NT24NG	0.59	0.43

tblEnergyUse	T24E	2.71	1.81
tblEnergyUse	T24NG	26.23	19.20
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	10.12
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.96
tblVehicleTrips	WD_TR	1.56	1.16
tblWater	IndoorWaterUseRate	81,715,081.50	79,850,000.00
tblWater	OutdoorWaterUseRate	127,810,768.50	79,850,000.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3578	3.5844	2.2768	4.0400e-003	0.0165	0.1796	0.1961	4.3700e-003	0.1671	0.1715	0.0000	360.8286	360.8286	0.0969	4.7000e-004	363.3903
Maximum	**0.3578**	**3.5844**	**2.2768**	**4.0400e-003**	**0.0165**	**0.1796**	**0.1961**	**4.3700e-003**	**0.1671**	**0.1715**	**0.0000**	**360.8286**	**360.8286**	**0.0969**	**4.7000e-004**	**363.3903**

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					
2019	0.3578	3.5844	2.2768	4.0400e-003	0.0165	0.1796	0.1961	4.3700e-003	0.1671	0.1715	0.0000	360.8282	360.8282	0.0969	4.7000e-004	363.3898
Maximum	**0.3578**	**3.5844**	**2.2768**	**4.0400e-003**	**0.0165**	**0.1796**	**0.1961**	**4.3700e-003**	**0.1671**	**0.1715**	**0.0000**	**360.8282**	**360.8282**	**0.0969**	**4.7000e-004**	**363.3898**

	ROG	NOx	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**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	1.2673	1.2673
2	4-1-2019	6-30-2019	1.2811	1.2811
3	7-1-2019	9-30-2019	1.2952	1.2952
		Highest	1.2952	1.2952

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	27.0377	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719
Energy	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	15,380.6415	15,380.6415	0.8188	0.2169	15,465.7461
Mobile	15.6879	16.7640	163.0338	0.3753	50.9607	0.2101	51.1708	13.6014	0.1959	13.7973	0.0000	34,750.9896	34,750.9896	2.2513	1.5239	35,261.4010
Waste						0.0000	0.0000		0.0000	0.0000	1,413.8544	0.0000	1,413.8544	83.5564	0.0000	3,502.7644
Water						0.0000	0.0000		0.0000	0.0000	25.3327	341.7201	367.0528	2.6308	0.0649	452.1717
Total	**43.4680**	**23.5202**	**169.4108**	**0.4158**	**50.9607**	**0.7256**	**51.6863**	**13.6014**	**0.7114**	**14.3128**	**1,439.1871**	**50,474.7341**	**51,913.9212**	**89.2608**	**1.8057**	**54,683.5550**

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	27.0377	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719
Energy	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	15,380.6415	15,380.6415	0.8188	0.2169	15,465.7461
Mobile	15.6879	16.7640	163.0338	0.3753	50.9607	0.2101	51.1708	13.6014	0.1959	13.7973	0.0000	34,750.9896	34,750.9896	2.2513	1.5239	35,261.4010
Waste						0.0000	0.0000		0.0000	0.0000	1,413.8544	0.0000	1,413.8544	83.5564	0.0000	3,502.7644
Water						0.0000	0.0000		0.0000	0.0000	25.3327	341.7201	367.0528	2.6308	0.0649	452.1717
Total	**43.4680**	**23.5202**	**169.4108**	**0.4158**	**50.9607**	**0.7256**	**51.6863**	**13.6014**	**0.7114**	**14.3128**	**1,439.1871**	**50,474.7341**	**51,913.9212**	**89.2608**	**1.8057**	**54,683.5550**

	ROG	NOx	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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3513	3.5783	2.2060	3.8800e-003		0.1795	0.1795		0.1670	0.1670	0.0000	346.2633	346.2633	0.0963	0.0000	348.6715
Total	**0.3513**	**3.5783**	**2.2060**	**3.8800e-003**		**0.1795**	**0.1795**		**0.1670**	**0.1670**	**0.0000**	**346.2633**	**346.2633**	**0.0963**	**0.0000**	**348.6715**

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	6.5000e-003	6.1100e-003	0.0708	1.6000e-004	0.0165	1.2000e-004	0.0166	4.3700e-003	1.1000e-004	4.4800e-003	0.0000	14.5653	14.5653	5.2000e-004	4.7000e-004	14.7188
Total	**6.5000e-003**	**6.1100e-003**	**0.0708**	**1.6000e-004**	**0.0165**	**1.2000e-004**	**0.0166**	**4.3700e-003**	**1.1000e-004**	**4.4800e-003**	**0.0000**	**14.5653**	**14.5653**	**5.2000e-004**	**4.7000e-004**	**14.7188**

3.2 Demolition - 2019

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	0.3513	3.5783	2.2060	3.8800e-003		0.1795	0.1795		0.1670	0.1670	0.0000	346.2629	346.2629	0.0963	0.0000	348.6711
Total	**0.3513**	**3.5783**	**2.2060**	**3.8800e-003**		**0.1795**	**0.1795**		**0.1670**	**0.1670**	**0.0000**	**346.2629**	**346.2629**	**0.0963**	**0.0000**	**348.6711**

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	6.5000e-003	6.1100e-003	0.0708	1.6000e-004	0.0165	1.2000e-004	0.0166	4.3700e-003	1.1000e-004	4.4800e-003	0.0000	14.5653	14.5653	5.2000e-004	4.7000e-004	14.7188
Total	**6.5000e-003**	**6.1100e-003**	**0.0708**	**1.6000e-004**	**0.0165**	**1.2000e-004**	**0.0166**	**4.3700e-003**	**1.1000e-004**	**4.4800e-003**	**0.0000**	**14.5653**	**14.5653**	**5.2000e-004**	**4.7000e-004**	**14.7188**

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	15.6879	16.7640	163.0338	0.3753	50.9607	0.2101	51.1708	13.6014	0.1959	13.7973	0.0000	34,750.9896	34,750.9896	2.2513	1.5239	35,261.4010
Unmitigated	15.6879	16.7640	163.0338	0.3753	50.9607	0.2101	51.1708	13.6014	0.1959	13.7973	0.0000	34,750.9896	34,750.9896	2.2513	1.5239	35,261.4010

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	44,113.00	36,760.83	0.00	135,351,277	135,351,277
Total	44,113.00	36,760.83	0.00	135,351,277	135,351,277

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
University/College (4yr)	0.00	10.12	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.533516	0.066498	0.189801	0.125856	0.024330	0.007176	0.012787	0.008479	0.000809	0.000452	0.026193	0.000781	0.003322

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	8,032.5948	8,032.5948	0.6780	0.0822	8,074.0336
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	8,032.5948	8,032.5948	0.6780	0.0822	8,074.0336
NaturalGas Mitigated	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,348.0467	7,348.0467	0.1408	0.1347	7,391.7124
NaturalGas Unmitigated	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,348.0467	7,348.0467	0.1408	0.1347	7,391.7124

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					
University/College (4yr)	1.37697e+008	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,348.0467	7,348.0467	0.1408	0.1347	7,391.7124
Total		**0.7425**	**6.7499**	**5.6699**	**0.0405**		**0.5130**	**0.5130**		**0.5130**	**0.5130**	**0.0000**	**7,348.0467**	**7,348.0467**	**0.1408**	**0.1347**	**7,391.7124**

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					
University/College (4yr)	1.37697e+008	0.7425	6.7499	5.6699	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,348.0467	7,348.0467	0.1408	0.1347	7,391.7124
Total		**0.7425**	**6.7499**	**5.6699**	**0.0405**		**0.5130**	**0.5130**		**0.5130**	**0.5130**	**0.0000**	**7,348.0467**	**7,348.0467**	**0.1408**	**0.1347**	**7,391.7124**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
University/College (4yr)	4.52935e+007	8,032.5948	0.6780	0.0822	8,074.0336
Total		**8,032.5948**	**0.6780**	**0.0822**	**8,074.0336**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
University/College (4yr)	4.52935e+007	8,032.5948	0.6780	0.0822	8,074.0336
Total		**8,032.5948**	**0.6780**	**0.0822**	**8,074.0336**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	27.0377	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719
Unmitigated	27.0377	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.6256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.3474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0647	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719
Total	**27.0377**	**6.3500e-003**	**0.7071**	**5.0000e-005**		**2.5100e-003**	**2.5100e-003**		**2.5100e-003**	**2.5100e-003**	**0.0000**	**1.3829**	**1.3829**	**3.5600e-003**	**0.0000**	**1.4719**

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	1.6256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.3474					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0647	6.3500e-003	0.7071	5.0000e-005		2.5100e-003	2.5100e-003		2.5100e-003	2.5100e-003	0.0000	1.3829	1.3829	3.5600e-003	0.0000	1.4719
Total	**27.0377**	**6.3500e-003**	**0.7071**	**5.0000e-005**		**2.5100e-003**	**2.5100e-003**		**2.5100e-003**	**2.5100e-003**	**0.0000**	**1.3829**	**1.3829**	**3.5600e-003**	**0.0000**	**1.4719**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	367.0528	2.6308	0.0649	452.1717
Unmitigated	367.0528	2.6308	0.0649	452.1717

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
University/College (4yr)	79.85 / 79.85	367.0528	2.6308	0.0649	452.1717
Total		**367.0528**	**2.6308**	**0.0649**	**452.1717**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
University/College (4yr)	79.85 / 79.85	367.0528	2.6308	0.0649	452.1717
Total		**367.0528**	**2.6308**	**0.0649**	**452.1717**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,413.8544	83.5564	0.0000	3,502.7644
Unmitigated	1,413.8544	83.5564	0.0000	3,502.7644

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
University/College (4yr)	6965.11	1,413.854 4	83.5564	0.0000	3,502.764 4
Total		**1,413.854 4**	**83.5564**	**0.0000**	**3,502.764 4**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
University/College (4yr)	6965.11	1,413.854 4	83.5564	0.0000	3,502.764 4
Total		**1,413.854 4**	**83.5564**	**0.0000**	**3,502.764 4**

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

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

CSULB Buildout Operation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	38,165.00	Student	161.03	7,014,630.38	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2035
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 -

Vehicle Trips - Per traffic study

Landscape Equipment - Assume landscaping year-round

Energy Use - Assume same NG consumption as existing conditions

Water And Wastewater - 2035 water consumption is 159.7 MG. Assume half indoor/half outdoor

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblEnergyUse	LightingElect	3.39	2.26
tblEnergyUse	NT24E	3.59	2.39
tblEnergyUse	NT24NG	0.59	0.43

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

tblEnergyUse	T24E	2.71	1.81
tblEnergyUse	T24NG	26.23	19.20
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	10.12
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.96
tblVehicleTrips	WD_TR	1.56	1.16
tblWater	IndoorWaterUseRate	81,715,081.50	79,850,000.00
tblWater	OutdoorWaterUseRate	127,810,768.50	79,850,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5803	35.8374	22.8243	0.0405	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,984.8358	3,984.8358	1.0675	4.8100e-003	4,012.9572
Maximum	**3.5803**	**35.8374**	**22.8243**	**0.0405**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,984.8358**	**3,984.8358**	**1.0675**	**4.8100e-003**	**4,012.9572**

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					
2019	3.5803	35.8374	22.8243	0.0405	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,984.8358	3,984.8358	1.0675	4.8100e-003	4,012.9572
Maximum	**3.5803**	**35.8374**	**22.8243**	**0.0405**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,984.8358**	**3,984.8358**	**1.0675**	**4.8100e-003**	**4,012.9572**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Energy	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Mobile	108.3226	101.6366	1,094.8612	2.5662	342.2677	1.3864	343.6541	91.2169	1.2933	92.5101		261,861.7343	261,861.7343	16.0767	10.6283	265,430.8978
Total	**260.5427**	**138.6569**	**1,129.8035**	**2.7884**	**342.2677**	**4.2111**	**346.4787**	**91.2169**	**4.1179**	**95.3348**		**306,252.7442**	**306,252.7442**	**16.9489**	**11.4420**	**310,086.1895**

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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Energy	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Mobile	108.3226	101.6366	1,094.8612	2.5662	342.2677	1.3864	343.6541	91.2169	1.2933	92.5101		261,861.7343	261,861.7343	16.0767	10.6283	265,430.8978
Total	**260.5427**	**138.6569**	**1,129.8035**	**2.7884**	**342.2677**	**4.2111**	**346.4787**	**91.2169**	**4.1179**	**95.3348**		**306,252.7442**	**306,252.7442**	**16.9489**	**11.4420**	**310,086.1895**

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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**		**3,816.899 4**	**3,816.899 4**	**1.0618**		**3,843.445 1**

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	0.0669	0.0544	0.7643	1.6600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		167.9364	167.9364	5.6800e-003	4.8100e-003	169.5121
Total	**0.0669**	**0.0544**	**0.7643**	**1.6600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**167.9364**	**167.9364**	**5.6800e-003**	**4.8100e-003**	**169.5121**

3.2 Demolition - 2019

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	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0669	0.0544	0.7643	1.6600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		167.9364	167.9364	5.6800e-003	4.8100e-003	169.5121
Total	**0.0669**	**0.0544**	**0.7643**	**1.6600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**167.9364**	**167.9364**	**5.6800e-003**	**4.8100e-003**	**169.5121**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	108.3226	101.6366	1,094.8612	2.5662	342.2677	1.3864	343.6541	91.2169	1.2933	92.5101		261,861.7343	261,861.7343	16.0767	10.6283	265,430.8978
Unmitigated	108.3226	101.6366	1,094.8612	2.5662	342.2677	1.3864	343.6541	91.2169	1.2933	92.5101		261,861.7343	261,861.7343	16.0767	10.6283	265,430.8978

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	44,113.00	36,760.83	0.00	135,351,277	135,351,277
Total	44,113.00	36,760.83	0.00	135,351,277	135,351,277

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
University/College (4yr)	0.00	10.12	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.533516	0.066498	0.189801	0.125856	0.024330	0.007176	0.012787	0.008479	0.000809	0.000452	0.026193	0.000781	0.003322

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
NaturalGas Unmitigated	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013

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					
University/College (4yr)	377253	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Total		**4.0684**	**36.9856**	**31.0679**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,382.6573**	**44,382.6573**	**0.8507**	**0.8137**	**44,646.4013**

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					
University/College (4yr)	377.253	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Total		**4.0684**	**36.9856**	**31.0679**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,382.6573**	**44,382.6573**	**0.8507**	**0.8137**	**44,646.4013**

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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Unmitigated	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905

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	8.9076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	138.8897					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3544	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Total	**148.1517**	**0.0348**	**3.8745**	**2.9000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**		**8.3525**	**8.3525**	**0.0215**		**8.8905**

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	8.9076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	138.8897					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3544	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Total	**148.1517**	**0.0348**	**3.8745**	**2.9000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**		**8.3525**	**8.3525**	**0.0215**		**8.8905**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

CSULB Buildout Operation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	38,165.00	Student	161.03	7,014,630.38	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2035
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 -

Vehicle Trips - Per traffic study

Landscape Equipment - Assume landscaping year-round

Energy Use - Assume same NG consumption as existing conditions

Water And Wastewater - 2035 water consumption is 159.7 MG. Assume half indoor/half outdoor

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblEnergyUse	LightingElect	3.39	2.26
tblEnergyUse	NT24E	3.59	2.39
tblEnergyUse	NT24NG	0.59	0.43

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

tblEnergyUse	T24E	2.71	1.81
tblEnergyUse	T24NG	26.23	19.20
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	10.12
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.96
tblVehicleTrips	WD_TR	1.56	1.16
tblWater	IndoorWaterUseRate	81,715,081.50	79,850,000.00
tblWater	OutdoorWaterUseRate	127,810,768.50	79,850,000.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5831	35.8426	22.7482	0.0404	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,975.0060	3,975.0060	1.0675	5.1100e-003	4,003.2178
Maximum	**3.5831**	**35.8426**	**22.7482**	**0.0404**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,975.0060**	**3,975.0060**	**1.0675**	**5.1100e-003**	**4,003.2178**

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					
2019	3.5831	35.8426	22.7482	0.0404	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,975.0060	3,975.0060	1.0675	5.1100e-003	4,003.2178
Maximum	**3.5831**	**35.8426**	**22.7482**	**0.0404**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,975.0060**	**3,975.0060**	**1.0675**	**5.1100e-003**	**4,003.2178**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Energy	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Mobile	104.6299	109.2790	1,064.8699	2.4483	342.2677	1.3870	343.6546	91.2169	1.2938	92.5107		249,939.5067	249,939.5067	16.4287	11.0124	253,631.9129
Total	**256.8500**	**146.2994**	**1,099.8122**	**2.6705**	**342.2677**	**4.2116**	**346.4793**	**91.2169**	**4.1184**	**95.3353**		**294,330.5166**	**294,330.5166**	**17.3008**	**11.8261**	**298,287.2046**

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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Energy	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Mobile	104.6299	109.2790	1,064.8699	2.4483	342.2677	1.3870	343.6546	91.2169	1.2938	92.5107		249,939.5067	249,939.5067	16.4287	11.0124	253,631.9129
Total	**256.8500**	**146.2994**	**1,099.8122**	**2.6705**	**342.2677**	**4.2116**	**346.4793**	**91.2169**	**4.1184**	**95.3353**		**294,330.5166**	**294,330.5166**	**17.3008**	**11.8261**	**298,287.2046**

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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0698	0.0596	0.6882	1.5600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		158.1066	158.1066	5.7100e-003	5.1100e-003	159.7728
Total	**0.0698**	**0.0596**	**0.6882**	**1.5600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**158.1066**	**158.1066**	**5.7100e-003**	**5.1100e-003**	**159.7728**

3.2 Demolition - 2019

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	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0698	0.0596	0.6882	1.5600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		158.1066	158.1066	5.7100e-003	5.1100e-003	159.7728
Total	**0.0698**	**0.0596**	**0.6882**	**1.5600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**158.1066**	**158.1066**	**5.7100e-003**	**5.1100e-003**	**159.7728**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	104.6299	109.2790	1,064.8699	2.4483	342.2677	1.3870	343.6546	91.2169	1.2938	92.5107		249,939.5067	249,939.5067	16.4287	11.0124	253,631.9129
Unmitigated	104.6299	109.2790	1,064.8699	2.4483	342.2677	1.3870	343.6546	91.2169	1.2938	92.5107		249,939.5067	249,939.5067	16.4287	11.0124	253,631.9129

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	44,113.00	36,760.83	0.00	135,351,277	135,351,277
Total	44,113.00	36,760.83	0.00	135,351,277	135,351,277

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
University/College (4yr)	0.00	10.12	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.533516	0.066498	0.189801	0.125856	0.024330	0.007176	0.012787	0.008479	0.000809	0.000452	0.026193	0.000781	0.003322

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
NaturalGas Unmitigated	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013

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					
University/College (4yr)	377253	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Total		**4.0684**	**36.9856**	**31.0679**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,382.6573**	**44,382.6573**	**0.8507**	**0.8137**	**44,646.4013**

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					
University/College (4yr)	377.253	4.0684	36.9856	31.0679	0.2219		2.8109	2.8109		2.8109	2.8109		44,382.6573	44,382.6573	0.8507	0.8137	44,646.4013
Total		**4.0684**	**36.9856**	**31.0679**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,382.6573**	**44,382.6573**	**0.8507**	**0.8137**	**44,646.4013**

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	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Unmitigated	148.1517	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905

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	8.9076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	138.8897					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3544	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Total	**148.1517**	**0.0348**	**3.8745**	**2.9000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**		**8.3525**	**8.3525**	**0.0215**		**8.8905**

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	8.9076					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	138.8897					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3544	0.0348	3.8745	2.9000e-004		0.0137	0.0137		0.0137	0.0137		8.3525	8.3525	0.0215		8.8905
Total	**148.1517**	**0.0348**	**3.8745**	**2.9000e-004**		**0.0137**	**0.0137**		**0.0137**	**0.0137**		**8.3525**	**8.3525**	**0.0215**		**8.8905**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

CSULB Existing Operation

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	32,699.00	Student	137.97	6,009,993.42	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2019
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 -

Land Use -

Construction Phase - Operations only

Vehicle Trips - Daily trips and VMT based on traffic study

Area Coating - SCAQMD Rule 1113

Energy Use - Total 2019 NG consumption was 1,377,285 therms (~137.7k kBtu).
Total 2019 SCE Electricity consumption was 37,884,271 kWh.

Water And Wastewater - 2019 domestic water consumption was 179,621 ccf (134.4 MG). Assume half indoor/half outdoor.

Landscape Equipment - Landscping activities year-round

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

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

tblEnergyUse	LightingElect	3.39	2.21
tblEnergyUse	NT24E	3.59	2.34
tblEnergyUse	NT24NG	0.59	0.50
tblEnergyUse	T24E	2.71	1.76
tblEnergyUse	T24NG	26.23	22.41
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	11.74
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.85
tblVehicleTrips	WD_TR	1.56	1.02
tblWater	IndoorWaterUseRate	70,011,828.90	67,187,235.00
tblWater	OutdoorWaterUseRate	109,505,681.10	67,187,235.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3578	3.5844	2.2768	4.0400e-003	0.0165	0.1796	0.1961	4.3700e-003	0.1671	0.1715	0.0000	360.8286	360.8286	0.0969	4.7000e-004	363.3903
Maximum	**0.3578**	**3.5844**	**2.2768**	**4.0400e-003**	**0.0165**	**0.1796**	**0.1961**	**4.3700e-003**	**0.1671**	**0.1715**	**0.0000**	**360.8286**	**360.8286**	**0.0969**	**4.7000e-004**	**363.3903**

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					
2019	0.3578	3.5844	2.2768	4.0400e-003	0.0165	0.1796	0.1961	4.3700e-003	0.1671	0.1715	0.0000	360.8282	360.8282	0.0969	4.7000e-004	363.3898
Maximum	**0.3578**	**3.5844**	**2.2768**	**4.0400e-003**	**0.0165**	**0.1796**	**0.1961**	**4.3700e-003**	**0.1671**	**0.1715**	**0.0000**	**360.8282**	**360.8282**	**0.0969**	**4.7000e-004**	**363.3898**

	ROG	**NOx**	**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**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2019	3-31-2019	1.2673	1.2673
2	4-1-2019	6-30-2019	1.2811	1.2811
3	7-1-2019	9-30-2019	1.2952	1.2952
		Highest	1.2952	1.2952

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	23.1682	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651
Energy	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	14,065.9520	14,065.9520	0.7079	0.2034	14,144.2742
Mobile	20.3172	36.0070	238.7577	0.4820	44.5670	0.5808	45.1478	11.8952	0.5458	12.4410	0.0000	44,531.2897	44,531.2897	2.9294	2.0814	45,224.7844
Waste						0.0000	0.0000		0.0000	0.0000	1,211.3628	0.0000	1,211.3628	71.5895	0.0000	3,001.1000
Water						0.0000	0.0000		0.0000	0.0000	21.3154	287.5295	308.8449	2.2136	0.0546	380.4655
Total	**44.2279**	**42.7624**	**245.0427**	**0.5225**	**44.5670**	**1.0960**	**45.6630**	**11.8952**	**1.0610**	**12.9562**	**1,232.6782**	**58,885.9559**	**60,118.6341**	**77.4435**	**2.3395**	**62,751.8891**

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	23.1682	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651
Energy	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	14,065.9520	14,065.9520	0.7079	0.2034	14,144.2742
Mobile	20.3172	36.0070	238.7577	0.4820	44.5670	0.5808	45.1478	11.8952	0.5458	12.4410	0.0000	44,531.2897	44,531.2897	2.9294	2.0814	45,224.7844
Waste						0.0000	0.0000		0.0000	0.0000	1,211.3628	0.0000	1,211.3628	71.5895	0.0000	3,001.1000
Water						0.0000	0.0000		0.0000	0.0000	21.3154	287.5295	308.8449	2.2136	0.0546	380.4655
Total	**44.2279**	**42.7624**	**245.0427**	**0.5225**	**44.5670**	**1.0960**	**45.6630**	**11.8952**	**1.0610**	**12.9562**	**1,232.6782**	**58,885.9559**	**60,118.6341**	**77.4435**	**2.3395**	**62,751.8891**

	ROG	NOx	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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

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

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3513	3.5783	2.2060	3.8800e-003		0.1795	0.1795		0.1670	0.1670	0.0000	346.2633	346.2633	0.0963	0.0000	348.6715
Total	**0.3513**	**3.5783**	**2.2060**	**3.8800e-003**		**0.1795**	**0.1795**		**0.1670**	**0.1670**	**0.0000**	**346.2633**	**346.2633**	**0.0963**	**0.0000**	**348.6715**

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	6.5000e-003	6.1100e-003	0.0708	1.6000e-004	0.0165	1.2000e-004	0.0166	4.3700e-003	1.1000e-004	4.4800e-003	0.0000	14.5653	14.5653	5.2000e-004	4.7000e-004	14.7188
Total	**6.5000e-003**	**6.1100e-003**	**0.0708**	**1.6000e-004**	**0.0165**	**1.2000e-004**	**0.0166**	**4.3700e-003**	**1.1000e-004**	**4.4800e-003**	**0.0000**	**14.5653**	**14.5653**	**5.2000e-004**	**4.7000e-004**	**14.7188**

3.2 Demolition - 2019

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	0.3513	3.5783	2.2060	3.8800e-003		0.1795	0.1795		0.1670	0.1670	0.0000	346.2629	346.2629	0.0963	0.0000	348.6711
Total	**0.3513**	**3.5783**	**2.2060**	**3.8800e-003**		**0.1795**	**0.1795**		**0.1670**	**0.1670**	**0.0000**	**346.2629**	**346.2629**	**0.0963**	**0.0000**	**348.6711**

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	6.5000e-003	6.1100e-003	0.0708	1.6000e-004	0.0165	1.2000e-004	0.0166	4.3700e-003	1.1000e-004	4.4800e-003	0.0000	14.5653	14.5653	5.2000e-004	4.7000e-004	14.7188
Total	**6.5000e-003**	**6.1100e-003**	**0.0708**	**1.6000e-004**	**0.0165**	**1.2000e-004**	**0.0166**	**4.3700e-003**	**1.1000e-004**	**4.4800e-003**	**0.0000**	**14.5653**	**14.5653**	**5.2000e-004**	**4.7000e-004**	**14.7188**

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	20.3172	36.0070	238.7577	0.4820	44.5670	0.5808	45.1478	11.8952	0.5458	12.4410	0.0000	44,531.2897	44,531.2897	2.9294	2.0814	45,224.7844
Unmitigated	20.3172	36.0070	238.7577	0.4820	44.5670	0.5808	45.1478	11.8952	0.5458	12.4410	0.0000	44,531.2897	44,531.2897	2.9294	2.0814	45,224.7844

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	33,237.00	27,697.50	0.00	118,359,757	118,359,757
Total	33,237.00	27,697.50	0.00	118,359,757	118,359,757

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
University/College (4yr)	0.00	11.74	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.544194	0.057514	0.183980	0.134312	0.023936	0.005880	0.012192	0.009004	0.000864	0.000535	0.022719	0.000742	0.004128

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	6,718.0246	6,718.0246	0.5670	0.0687	6,752.6817
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6,718.0246	6,718.0246	0.5670	0.0687	6,752.6817
NaturalGas Mitigated	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,347.9274	7,347.9274	0.1408	0.1347	7,391.5925
NaturalGas Unmitigated	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,347.9274	7,347.9274	0.1408	0.1347	7,391.5925

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					
University/College (4yr)	1.37695e +008	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,347.927 4	7,347.927 4	0.1408	0.1347	7,391.592 5
Total		**0.7425**	**6.7498**	**5.6698**	**0.0405**		**0.5130**	**0.5130**		**0.5130**	**0.5130**	**0.0000**	**7,347.927 4**	**7,347.927 4**	**0.1408**	**0.1347**	**7,391.592 5**

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					
University/College (4yr)	1.37695e +008	0.7425	6.7498	5.6698	0.0405		0.5130	0.5130		0.5130	0.5130	0.0000	7,347.927 4	7,347.927 4	0.1408	0.1347	7,391.592 5
Total		**0.7425**	**6.7498**	**5.6698**	**0.0405**		**0.5130**	**0.5130**		**0.5130**	**0.5130**	**0.0000**	**7,347.927 4**	**7,347.927 4**	**0.1408**	**0.1347**	**7,391.592 5**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
University/College (4yr)	3.7881e +007	6,718.024 6	0.5670	0.0687	6,752.681 7
Total		**6,718.024 6**	**0.5670**	**0.0687**	**6,752.681 7**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
University/College (4yr)	3.7881e +007	6,718.024 6	0.5670	0.0687	6,752.681 7
Total		**6,718.024 6**	**0.5670**	**0.0687**	**6,752.681 7**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	23.1682	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651
Unmitigated	23.1682	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.3928					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	21.7171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0583	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651
Total	**23.1682**	**5.7200e-003**	**0.6152**	**5.0000e-005**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**1.1848**	**1.1848**	**3.2100e-003**	**0.0000**	**1.2651**

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	1.3928					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	21.7171					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0583	5.7200e-003	0.6152	5.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	1.1848	1.1848	3.2100e-003	0.0000	1.2651
Total	**23.1682**	**5.7200e-003**	**0.6152**	**5.0000e-005**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**1.1848**	**1.1848**	**3.2100e-003**	**0.0000**	**1.2651**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	308.8449	2.2136	0.0546	380.4655
Unmitigated	308.8449	2.2136	0.0546	380.4655

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
University/College (4yr)	67.1872 / 67.1872	308.8449	2.2136	0.0546	380.4655
Total		**308.8449**	**2.2136**	**0.0546**	**380.4655**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
University/College (4yr)	67.1872 / 67.1872	308.8449	2.2136	0.0546	380.4655
Total		**308.8449**	**2.2136**	**0.0546**	**380.4655**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,211.3628	71.5895	0.0000	3,001.1000
Unmitigated	1,211.3628	71.5895	0.0000	3,001.1000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
University/College (4yr)	5967.57	1,211.362 8	71.5895	0.0000	3,001.100 0
Total		**1,211.362 8**	**71.5895**	**0.0000**	**3,001.100 0**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
University/College (4yr)	5967.57	1,211.362 8	71.5895	0.0000	3,001.100 0
Total		**1,211.362 8**	**71.5895**	**0.0000**	**3,001.100 0**

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

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

CSULB Existing Operation

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	32,699.00	Student	137.97	6,009,993.42	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	9			**Operational Year**	2019
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 -

Land Use -

Construction Phase - Operations only

Vehicle Trips - Daily trips and VMT based on traffic study

Area Coating - SCAQMD Rule 1113

Energy Use - Total 2019 NG consumption was 1,377,285 therms (~137.7k kBtu).
Total 2019 SCE Electricity consumption was 37,884,271 kWh.

Water And Wastewater - 2019 domestic water consumption was 179,621 ccf (134.4 MG). Assume half indoor/half outdoor.

Landscape Equipment - Landscping activities year-round

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

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

tblEnergyUse	LightingElect	3.39	2.21
tblEnergyUse	NT24E	3.59	2.34
tblEnergyUse	NT24NG	0.59	0.50
tblEnergyUse	T24E	2.71	1.76
tblEnergyUse	T24NG	26.23	22.41
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	11.74
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.85
tblVehicleTrips	WD_TR	1.56	1.02
tblWater	IndoorWaterUseRate	70,011,828.90	67,187,235.00
tblWater	OutdoorWaterUseRate	109,505,681.10	67,187,235.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5803	35.8374	22.8243	0.0405	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,984.8358	3,984.8358	1.0675	4.8100e-003	4,012.9572
Maximum	**3.5803**	**35.8374**	**22.8243**	**0.0405**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,984.8358**	**3,984.8358**	**1.0675**	**4.8100e-003**	**4,012.9572**

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					
2019	3.5803	35.8374	22.8243	0.0405	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,984.8358	3,984.8358	1.0675	4.8100e-003	4,012.9572
Maximum	**3.5803**	**35.8374**	**22.8243**	**0.0405**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,984.8358**	**3,984.8358**	**1.0675**	**4.8100e-003**	**4,012.9572**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Energy	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Mobile	139.9007	218.3039	1,638.2327	3.3010	299.3252	3.8330	303.1581	79.7745	3.6017	83.3762		336,094.2699	336,094.2699	20.9237	14.3837	340,903.6945
Total	**270.9183**	**255.3201**	**1,672.6713**	**3.5231**	**299.3252**	**6.6560**	**305.9811**	**79.7745**	**6.4247**	**86.1992**		**380,483.3631**	**380,483.3631**	**21.7937**	**15.1973**	**385,557.0122**

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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Energy	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Mobile	139.9007	218.3039	1,638.2327	3.3010	299.3252	3.8330	303.1581	79.7745	3.6017	83.3762		336,094.2699	336,094.2699	20.9237	14.3837	340,903.6945
Total	**270.9183**	**255.3201**	**1,672.6713**	**3.5231**	**299.3252**	**6.6560**	**305.9811**	**79.7745**	**6.4247**	**86.1992**		**380,483.3631**	**380,483.3631**	**21.7937**	**15.1973**	**385,557.0122**

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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0669	0.0544	0.7643	1.6600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		167.9364	167.9364	5.6800e-003	4.8100e-003	169.5121
Total	**0.0669**	**0.0544**	**0.7643**	**1.6600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**167.9364**	**167.9364**	**5.6800e-003**	**4.8100e-003**	**169.5121**

3.2 Demolition - 2019

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	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.899 4	3,816.899 4	1.0618		3,843.445 1
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**	**0.0000**	**3,816.899 4**	**3,816.899 4**	**1.0618**		**3,843.445 1**

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	0.0669	0.0544	0.7643	1.6600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		167.9364	167.9364	5.6800e-003	4.8100e-003	169.5121
Total	**0.0669**	**0.0544**	**0.7643**	**1.6600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**167.9364**	**167.9364**	**5.6800e-003**	**4.8100e-003**	**169.5121**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	139.9007	218.3039	1,638.2327	3.3010	299.3252	3.8330	303.1581	79.7745	3.6017	83.3762		336,094.2699	336,094.2699	20.9237	14.3837	340,903.6945
Unmitigated	139.9007	218.3039	1,638.2327	3.3010	299.3252	3.8330	303.1581	79.7745	3.6017	83.3762		336,094.2699	336,094.2699	20.9237	14.3837	340,903.6945

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	33,237.00	27,697.50	0.00	118,359,757	118,359,757
Total	33,237.00	27,697.50	0.00	118,359,757	118,359,757

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
University/College (4yr)	0.00	11.74	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.544194	0.057514	0.183980	0.134312	0.023936	0.005880	0.012192	0.009004	0.000864	0.000535	0.022719	0.000742	0.004128

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
NaturalGas Unmitigated	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766

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					
University/College (4yr)	377246	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Total		**4.0683**	**36.9850**	**31.0674**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,381.9369**	**44,381.9369**	**0.8507**	**0.8137**	**44,645.6766**

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					
University/College (4yr)	377.246	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Total		**4.0683**	**36.9850**	**31.0674**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,381.9369**	**44,381.9369**	**0.8507**	**0.8137**	**44,645.6766**

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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Unmitigated	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.6319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	118.9979					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3195	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Total	**126.9492**	**0.0313**	**3.3712**	**2.5000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**		**7.1563**	**7.1563**	**0.0194**		**7.6411**

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	7.6319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	118.9979					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3195	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Total	**126.9492**	**0.0313**	**3.3712**	**2.5000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**		**7.1563**	**7.1563**	**0.0194**		**7.6411**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

CSULB Existing Operation

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
University/College (4yr)	32,699.00	Student	137.97	6,009,993.42	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 31

Climate Zone 9 **Operational Year** 2019

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 -

Land Use -

Construction Phase - Operations only

Vehicle Trips - Daily trips and VMT based on traffic study

Area Coating - SCAQMD Rule 1113

Energy Use - Total 2019 NG consumption was 1,377,285 therms (~137.7k kBtu).
Total 2019 SCE Electricity consumption was 37,884,271 kWh.

Water And Wastewater - 2019 domestic water consumption was 179,621 ccf (134.4 MG). Assume half indoor/half outdoor.

Landscape Equipment - Landscping activities year-round

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50

tblEnergyUse	LightingElect	3.39	2.21
tblEnergyUse	NT24E	3.59	2.34
tblEnergyUse	NT24NG	0.59	0.50
tblEnergyUse	T24E	2.71	1.76
tblEnergyUse	T24NG	26.23	22.41
tblLandscapeEquipment	NumberSummerDays	250	365
tblVehicleTrips	CC_TL	8.40	11.74
tblVehicleTrips	CC_TTP	88.60	100.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TTP	5.00	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TTP	6.40	0.00
tblVehicleTrips	DV_TP	9.00	0.00
tblVehicleTrips	PR_TP	91.00	100.00
tblVehicleTrips	ST_TR	1.30	0.85
tblVehicleTrips	WD_TR	1.56	1.02
tblWater	IndoorWaterUseRate	70,011,828.90	67,187,235.00
tblWater	OutdoorWaterUseRate	109,505,681.10	67,187,235.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	3.5831	35.8426	22.7482	0.0404	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,975.0060	3,975.0060	1.0675	5.1100e-003	4,003.2178
Maximum	**3.5831**	**35.8426**	**22.7482**	**0.0404**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,975.0060**	**3,975.0060**	**1.0675**	**5.1100e-003**	**4,003.2178**

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					
2019	3.5831	35.8426	22.7482	0.0404	0.1677	1.7961	1.9638	0.0445	1.6708	1.7152	0.0000	3,975.0060	3,975.0060	1.0675	5.1100e-003	4,003.2178
Maximum	**3.5831**	**35.8426**	**22.7482**	**0.0404**	**0.1677**	**1.7961**	**1.9638**	**0.0445**	**1.6708**	**1.7152**	**0.0000**	**3,975.0060**	**3,975.0060**	**1.0675**	**5.1100e-003**	**4,003.2178**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Energy	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Mobile	135.8101	233.4570	1,548.9479	3.1422	299.3252	3.8361	303.1612	79.7745	3.6047	83.3792		320,049.5869	320,049.5869	21.3572	14.9952	325,052.0820
Total	**266.8277**	**270.4733**	**1,583.3864**	**3.3643**	**299.3252**	**6.6590**	**305.9842**	**79.7745**	**6.4277**	**86.2021**		**364,438.6801**	**364,438.6801**	**22.2273**	**15.8089**	**369,705.3997**

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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Energy	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Mobile	135.8101	233.4570	1,548.9479	3.1422	299.3252	3.8361	303.1612	79.7745	3.6047	83.3792		320,049.5869	320,049.5869	21.3572	14.9952	325,052.0820
Total	**266.8277**	**270.4733**	**1,583.3864**	**3.3643**	**299.3252**	**6.6590**	**305.9842**	**79.7745**	**6.4277**	**86.2021**		**364,438.6801**	**364,438.6801**	**22.2273**	**15.8089**	**369,705.3997**

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	1/1/2019	10/7/2019	5	200	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697		3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**		**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0698	0.0596	0.6882	1.5600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		158.1066	158.1066	5.7100e-003	5.1100e-003	159.7728
Total	**0.0698**	**0.0596**	**0.6882**	**1.5600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**158.1066**	**158.1066**	**5.7100e-003**	**5.1100e-003**	**159.7728**

3.2 Demolition - 2019

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	3.5134	35.7830	22.0600	0.0388		1.7949	1.7949		1.6697	1.6697	0.0000	3,816.8994	3,816.8994	1.0618		3,843.4451
Total	**3.5134**	**35.7830**	**22.0600**	**0.0388**		**1.7949**	**1.7949**		**1.6697**	**1.6697**	**0.0000**	**3,816.8994**	**3,816.8994**	**1.0618**		**3,843.4451**

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	0.0698	0.0596	0.6882	1.5600e-003	0.1677	1.2000e-003	0.1689	0.0445	1.1000e-003	0.0456		158.1066	158.1066	5.7100e-003	5.1100e-003	159.7728
Total	**0.0698**	**0.0596**	**0.6882**	**1.5600e-003**	**0.1677**	**1.2000e-003**	**0.1689**	**0.0445**	**1.1000e-003**	**0.0456**		**158.1066**	**158.1066**	**5.7100e-003**	**5.1100e-003**	**159.7728**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	135.8101	233.4570	1,548.9479	3.1422	299.3252	3.8361	303.1612	79.7745	3.6047	83.3792		320,049.5869	320,049.5869	21.3572	14.9952	325,052.0820
Unmitigated	135.8101	233.4570	1,548.9479	3.1422	299.3252	3.8361	303.1612	79.7745	3.6047	83.3792		320,049.5869	320,049.5869	21.3572	14.9952	325,052.0820

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
University/College (4yr)	33,237.00	27,697.50	0.00	118,359,757	118,359,757
Total	33,237.00	27,697.50	0.00	118,359,757	118,359,757

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
University/College (4yr)	0.00	11.74	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
University/College (4yr)	0.544194	0.057514	0.183980	0.134312	0.023936	0.005880	0.012192	0.009004	0.000864	0.000535	0.022719	0.000742	0.004128

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
NaturalGas Unmitigated	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766

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					
University/College (4yr)	377246	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Total		**4.0683**	**36.9850**	**31.0674**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,381.9369**	**44,381.9369**	**0.8507**	**0.8137**	**44,645.6766**

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					
University/College (4yr)	377.246	4.0683	36.9850	31.0674	0.2219		2.8109	2.8109		2.8109	2.8109		44,381.9369	44,381.9369	0.8507	0.8137	44,645.6766
Total		**4.0683**	**36.9850**	**31.0674**	**0.2219**		**2.8109**	**2.8109**		**2.8109**	**2.8109**		**44,381.9369**	**44,381.9369**	**0.8507**	**0.8137**	**44,645.6766**

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	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Unmitigated	126.9492	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	7.6319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	118.9979					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3195	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Total	**126.9492**	**0.0313**	**3.3712**	**2.5000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**		**7.1563**	**7.1563**	**0.0194**		**7.6411**

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	7.6319					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	118.9979					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.3195	0.0313	3.3712	2.5000e-004		0.0121	0.0121		0.0121	0.0121		7.1563	7.1563	0.0194		7.6411
Total	**126.9492**	**0.0313**	**3.3712**	**2.5000e-004**		**0.0121**	**0.0121**		**0.0121**	**0.0121**		**7.1563**	**7.1563**	**0.0194**		**7.6411**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX D

Biological Resources Database Search Results and CSULB Nesting Bird Guidance Document

Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Los Alamitos (3311871) OR Long Beach (3311872) OR South Gate (3311882) OR Whittier (3311881) OR La Habra (3311788) OR Anaheim (3311778) OR Newport Beach (3311768) OR Seal Beach (3311861))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Aphanisma blitoides aphanisma	PDCHE02010	None	None	G3G4	S2	1B.2
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus hornii var. hornii Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
Astragalus pycnostachyus var. lanosissimus Ventura Marsh milk-vetch	PDFAB0F7B1	Endangered	Endangered	G2T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex pacifica south coast saltscale	PDCHE041C0	None	None	G4	S2	1B.2
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G2	S1S2	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T3	S3	1B.2
Calystegia felix lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
Chelonia mydas green turtle	ARAAA02010	Threatened	None	G3	S4	
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Cicindela hirticollis gravida sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
Cicindela latesignata western beach tiger beetle	IICOL02110	None	None	G2G3	S1	
Cicindela senilis frosti senile tiger beetle	IICOL02121	None	None	G2G3T1T3	S1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coelus globosus globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	Candidate	None	G4T2T3	S2S3	
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eryngium aristulatum var. parishii San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G4G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Glyptostoma gabrielense San Gabriel chestnut	IMGASB1010	None	None	G2	S2	
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	
Habroscelimorpha gabbii western tidal-flat tiger beetle	IICOL02080	None	None	G2G4	S1	
Helianthus nuttallii ssp. parishii Los Angeles sunflower	PDAST4N102	None	None	G5TX	SX	1A
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Isocoma menziesii var. decumbens decumbent goldenbush	PDAST57091	None	None	G3G5T2T3	S2	1B.2
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G4G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Microtus californicus stephensi south coast marsh vole	AMAFF11035	None	None	G5T2T3	S1S2	SSC
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Nasturtium gambelii Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Nemacaulis denudata var. denudata coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G5	S3	SSC
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Panoquina errans wandering (=saltmarsh) skipper	IILEP84030	None	None	G4G5	S2	
Passerculus sandwichensis beldingi Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
Pelecanus occidentalis californicus California brown pelican	ABNFC01021	Delisted	Delisted	G4T3T4	S3	FP
Pentachaeta lyonii Lyon's pentachaeta	PDAST6X060	Endangered	Endangered	G1	S1	1B.1
Perognathus longimembris pacificus Pacific pocket mouse	AMAFD01042	Endangered	None	G5T1	S1	SSC
Phacelia stellaris Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T3Q	S2	SSC
Rallus obsoletus levipes light-footed Ridgway's rail	ABNME05014	Endangered	Endangered	G3T1T2	S1	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Rynchops niger black skimmer	ABNNM14010	None	None	G5	S2	SSC
Sagittaria sanfordii Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Sorex ornatus salicornicus southern California saltmarsh shrew	AMABA01104	None	None	G5T1?	S1	SSC
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Dune Scrub Southern Dune Scrub	CTT21330CA	None	None	G1	S1.1	
Southern Foredunes Southern Foredunes	CTT21230CA	None	None	G2	S2.1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Spea hammondii western spadefoot	AAABF02020	None	None	G2G3	S3	SSC
Sternula antillarum browni California least tern	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
Streptocephalus wootoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Suaeda esteroa estuary seablite	PDCHE0P0D0	None	None	G3	S2	1B.2
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trigonoscuta dorothea dorothea Dorothy's El Segundo Dune weevil	IICOL51021	None	None	G1T1	S1	
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

Record Count: 91

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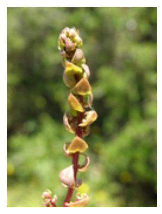
CNPS Rare Plant Inventory

CALIFORNIA NATIVE PLANT SOCIETY

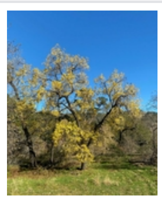
Search Results

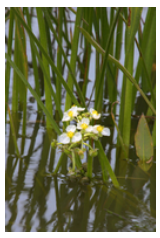
42 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3311871:3311778:3311872:3311882:3311768:3311788:3311881:3311861**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov	None	None	G4	S3?	4.2	 ©2003 Christopher L. Christie
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1	 © 2011 Aaron E. Sims
Aphanisma blitoides	aphanisma	Chenopodiaceae	annual herb	Feb-Jun	None	None	G3G4	S2	1B.2	 © 2010 Larry Sward
Astragalus hornii var. hornii	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1	No Photo Available
Astragalus pycnostachyus var. lanosissimus	Ventura Marsh milk-vetch	Fabaceae	perennial herb	(Jun)Aug-Oct	FE	CE	G2T1	S1	1B.1	No Photo Available
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct	None	None	G3	S1S2	1B.2	No Photo Available
Atriplex pacifica	south coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	None	None	G4	S2	1B.2	No Photo Available
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	None	None	G1G2	S1	1B.1	No Photo Available
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	None	None	G5T1	S1	1B.2	No Photo Available
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	None	None	G3G4	S3S4	4.2	No Photo Available
Calochortus plummerae	Plummer's mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G4	S4	4.2	No Photo

Available

Calochortus weedii var. intermedius	intermediate mariposa-lily	Liliaceae	perennial bulbiferous herb	May-Jul	None	None	G3G4T3	S3	1B.2	No Photo Available
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb	Mar-Sep	None	None	G1Q	S1	1B.1	No Photo Available
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)	None	None	G4	S4	3	No Photo Available
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov	None	None	G3T2	S2	1B.1	No Photo Available
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	May-Oct(Nov)	FE	CE	G4?T1	S1	1B.2	No Photo Available
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)	None	None	G3G4	S3	4.2	No Photo Available
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2	No Photo Available
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	None	None	G2	S2	1B.2	No Photo Available
Eleocharis parvula	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	None	None	G5	S3	4.3	 ©2018 Ron Vanderhoff
Eryngium aristulatum var. parishii	San Diego button-celery	Apiaceae	annual/perennial herb	Apr-Jun	FE	CE	G5T1	S1	1B.1	No Photo Available
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Asteraceae	perennial rhizomatous herb	Aug-Oct	None	None	G5TX	SX	1A	No Photo Available
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	3.2	No Photo Available
Isocoma menziesii var. decumbens	decumbent goldenbush	Asteraceae	perennial shrub	Apr-Nov	None	None	G3G5T2T3	S2	1B.2	No Photo Available
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	None	None	G4	S4	4.2	 © 2020 Zoya Akulova

										Akulova
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	None	None	G5T5	S4	4.2	 © 2019 Belinda Lo
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	None	None	G4T2	S2	1B.1	 © 2013 Keir Morse
Lycium californicum	California box-thorn	Solanaceae	perennial shrub	Mar-Aug(Dec)	None	None	G4	S4	4.2	No Photo Available
Nama stenocarpa	mud nama	Namaceae	annual/perennial herb	Jan-Jul	None	None	G4G5	S1S2	2B.2	No Photo Available
Nasturtium gambelii	Gambel's water cress	Brassicaceae	perennial rhizomatous herb	Apr-Oct	FE	CT	G1	S1	1B.1	No Photo Available
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	No Photo Available
Nemacaulis denudata var. denudata	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep	None	None	G3G4T2	S2	1B.2	No Photo Available
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	G1	S1	1B.1	No Photo Available
Pentachaeta lyonii	Lyon's pentachaeta	Asteraceae	annual herb	(Feb)Mar-Aug	FE	CE	G1	S1	1B.1	No Photo Available
Phacelia ramosissima var. austrolitoralis	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug	None	None	G5?T3Q	S3	3.2	No Photo Available
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun	None	None	G1	S1	1B.1	No Photo Available
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	None	None	G3	S3	4.2	No Photo Available
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	 ©2013 Debra L. Cook
Sidalcea	salt spring	Malvaceae	perennial herb	Mar-Jun	None	None	G4	S2	2B.2	

neomexicana	checkerbloom									No Photo Available
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(Jan-May)Jul-Oct	None	None	G3	S2	1B.2	No Photo Available
Suaeda taxifolia	woolly seablite	Chenopodiaceae	perennial evergreen shrub	Jan-Dec	None	None	G4	S4	4.2	No Photo Available
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 42 of 42 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 18 April 2022].

CONTACT US

Send questions and comments to rareplants@cnps.org.

Developed by Rincon Consultants, Inc.

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CONTRIBUTORS

The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria
CalPhotos

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IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Los Angeles County, California

NOT FOR CONSULTATION

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
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Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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2. [NOAA Fisheries](), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Pacific Pocket Mouse Perognathus longimembris pacificus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8080	Endangered

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher Polioptila californica californica Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8178	Threatened
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/8035	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

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Flowering Plants

NAME	STATUS
Salt Marsh Bird's-beak Cordylanthus maritimus ssp. maritimus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6447	Endangered
Ventura Marsh Milk-vetch Astragalus pycnostachyus var. lanosissimus Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1160	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

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Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15

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Bald Eagle Haliaeetus leucocephalus — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Black Oystercatcher Haematopus bachmani — Breeds Apr 15 to Oct 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9591

Black Skimmer Rynchops niger — Breeds May 20 to Sep 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5234

Black Turnstone Arenaria melanocephala — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Marbled Godwit Limosa fedoa — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

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Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

Willet Tringa semipalmata — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

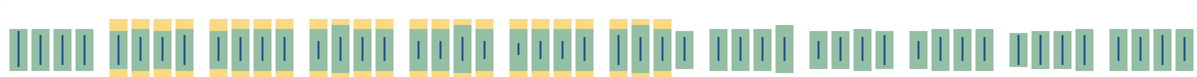
No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort – no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Allen's Hummingbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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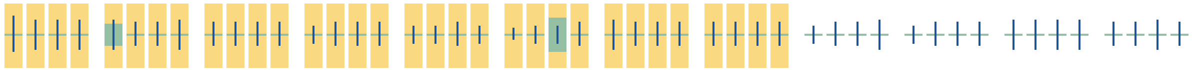
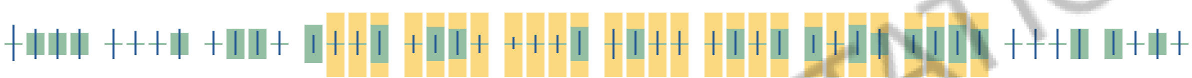
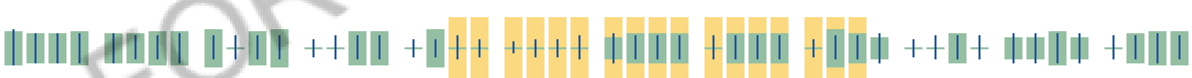
Bald Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



Black Oystercatcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Black Skimmer
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Black Turnstone
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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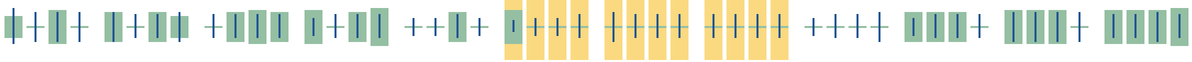
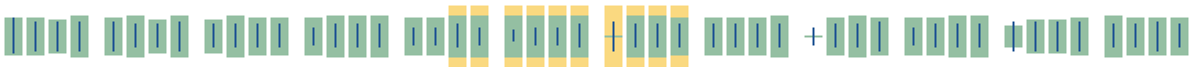
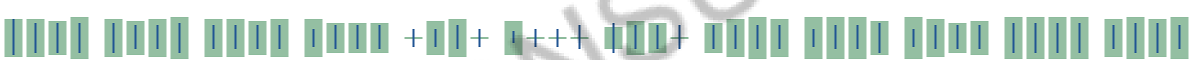
Clark's Grebe
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



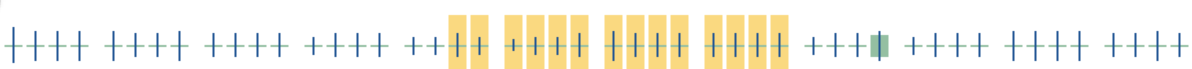
Common Yellowthroat
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Marbled Godwit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Olive-sided Flycatcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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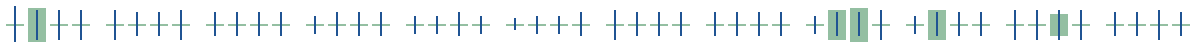
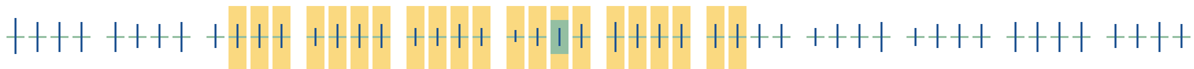
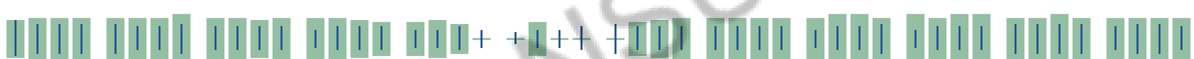
Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tricolored Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Willet
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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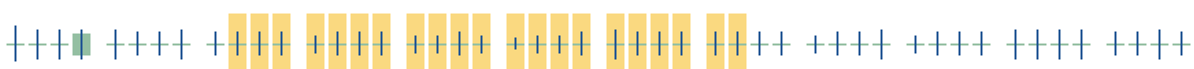
SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Wrentit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin

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Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

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Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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CSULB Nesting Bird Guidance Document

AECOM
300 South Grand Avenue
Eighth Floor
Los Angeles, CA 90071
213.593.8100
www.aecom.com

NESTING BIRD GUIDANCE

To: Martin Grant, Program Manager, CSULB
Anne Collins-Doehne, Principal Environmental Planner, CSU Office of the Chancellor

From: Art Popp, Senior Biologist, AECOM

Subject: Nesting Bird Guidance Document for CSULB Projects

Date: August 5, 2020

INTRODUCTION

AECOM Technical Services, Inc. (AECOM)'s has prepared this guidance document for California State University, Long Beach (CSULB) use (and potentially CSU systemwide use). This document defines governing regulations and recommended best practices to comply with State and Federal regulations protecting nesting birds during construction and development projects on campus.

There are nearly 500 bird species that spend all or part of their lives in Los Angeles County. Some are "resident" birds, which remain in the area year around. Birds, such as House Sparrows, spend their whole life in the same neighborhood and never migrate. Others, such as warblers, are migratory between wintering grounds in South or Central America, but may breed here in Los Angeles County. Shorebirds pass through this area on migratory routes to feed and rest. In addition to native bird species, there are some non-native bird species in Los Angeles County. These include rock pigeons (city or "street" pigeons), English house sparrows, European starlings, and domestic ducks and geese.

Birds common in urban areas can be found nesting even in the most developed areas. Trees, shrubs, buildings, poles, billboards, and even bare ground can provide a nesting site for the various species accustomed to finding their niche to nest in an often-noisy environment. This guidance document describes the times of the year that birds are more likely to be present or nesting, federal and state regulations that protect nesting birds, the manner in which birds may be impacted, and Best Management Practices that can be implemented to avoid and minimize impacts to nesting birds.

NESTING SEASONS

A number of raptors are common nesters in our urban areas, as shown in Figure 1. For instance, red-tailed hawk, Cooper's Hawk, and Great Horned Owls nest in mature trees or on structures. Their nesting season generally extends between January 15 and September 15, but they may begin nesting as early as December. Raptors have large nests constructed of sticks and branches that can be up to 3 or 4 feet in diameter.

Figure 1 – Examples of Common Raptors in Los Angeles County

Red-tailed hawk

Cooper's hawk

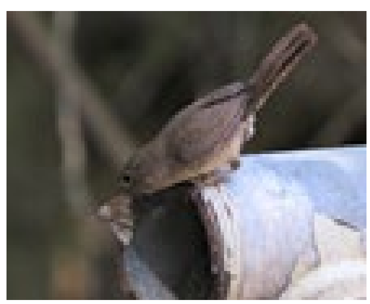
Great horned owl

The nesting season for songbirds common to our area (see Figure 2), such as House Finch, Black Phoebe, House Wren, Song Sparrow, Hummingbirds, Northern Mockingbird, and Mourning Dove, generally extends between February 1 through September 15. Songbird nests typically range in size up to a foot in diameter, with a small hummingbird nest typically only a few inches in size. The two largest songbirds common to our area, American crow and common raven, construct nests that are larger, approaching the size of a raptor nest.

The initiation of nesting activities in the spring is often dependent on weather conditions. If cooler, rainy conditions persist into the early months of the year, nesting can be delayed until warmer conditions prevail. With raptors and songbirds often nesting at different times between January and September, and some bird species nesting more than once in a season, nesting activities can be ongoing in our area from January to September.

Figure 2 – Examples of Common Songbirds in Los Angeles County

House Finch



House Wren

Black Phoebe

Hummingbird and Nest

Song Sparrow

Common Raven and Nest

APPLICABLE REGULATIONS

Under Section 10 of the federal Migratory Bird Treaty Act (MBTA), birds, parts thereof, eggs, nests and feathers are protected from “take.” Take is defined as “hunt, pursue, capture, kill, possess, sell, buy, or transport any migratory bird, nest, egg, or part thereof. Over 1,000 native species in the U.S. are covered under the MBTA. Non-native bird species are not protected under the MBTA.

California Fish and Game Code (CFGC) Sections 3500-3516 include protections for birds. Specifically, Section 3503 protects the nest and eggs of any bird species from unlawful take, possession, or destruction. Other sections offer protections to specific birds, while Section 3513 reinforces the MBTA at a state-level, prohibiting any take or possession of birds protected under the MBTA.

IMPACTS TO NESTING BIRDS

Impacts to bird nesting may occur in a direct or an indirect manner. Nest are directly impacted when a tree or structure containing a nest is removed, resulting in destruction of the nest and/or eggs. Nesting birds are indirectly impacted by noise, vibrations, dust, or an increase in the presence of human activity, which may cause an adult bird to leave an active nest, resulting in failure of the eggs to hatch, or not returning to feed the young birds. A nest is considered to be “active” from the moment eggs are laid in the nest until the time fledgling birds leave the nest and no longer return to the nest. When eggs or fledglings in the nest do not survive, “take” of the bird nest occurs.

Best Management Practices to Avoid Impacts to Nesting Birds

The most effective way to avoid take of nesting birds is to limit construction activities to the time period outside the typical nesting season, generally September 15 through January 15[i]. In reality, that is often not possible or practical due to construction schedules and weather. If vegetation removal and other project construction activities occurring outside the nesting season is not feasible, the following Best Management Practices should be employed to avoid and minimize impacts to nesting birds protected under the MBTA and CFGC. The recommended Best Management Practices include the following:

1. A pre-construction nesting bird survey should be conducted by a qualified biologist within 3 days (72 hours) prior to the start of construction activities and/or tree removal to determine whether active nests are present within or directly adjacent to the construction zone.
   a) Following completion of the survey, a brief memo report should be prepared to document the location of all nests found (if any), their status (i.e. eggs or hatchlings present), existing biological conditions of the project area, and the bird species detected during the survey. If an active nest is found, recommendations to avoid and minimize impacts to the nest, such as those presented below, should be included as appropriate.

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[i] *Nesting seasons differ based on weather conditions and species; therefore, a conservative range of January 15 through September 15 is assumed as the typical nesting season.*

b) Surveys should be conducted by a qualified biologist, defined as a biologist who has at least one year professional experience conducting nest surveys under a supervising biologist or has formal education in the identification of regional bird species, and is familiar with the life history of regional bird species.

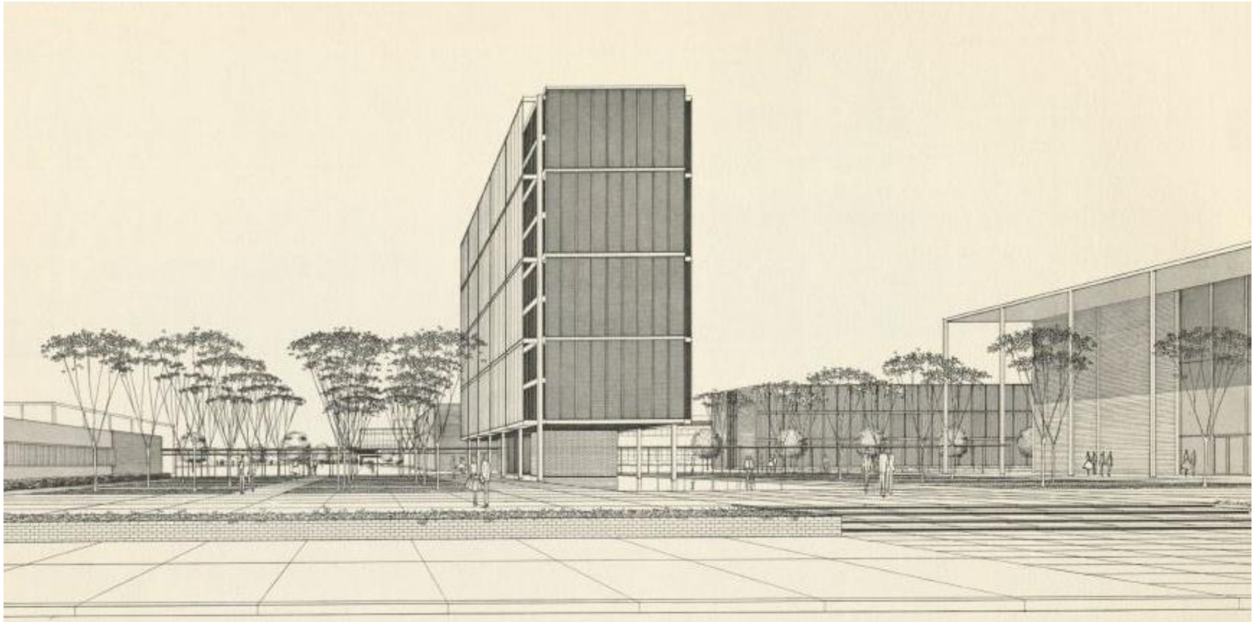
2. If construction activities must occur within 150 feet of an active nest of any songbird or within 300 feet of an active nest of any raptor, a qualified biologist shall monitor the nest on a weekly basis and construction activity shall be postponed within those buffers until the biologist determines that the nest is no longer active. These buffer distances are suitable for general compliance with the MBTA and CFGC.

3. Avoidance buffers around active nests should be delineated on-site with bright flagging, for easy identification by project staff. The on-site construction supervisor and operator staff will be notified of the nest and the buffer limits to ensure it is maintained.

4. When recommended nest avoidance buffers are not feasible and construction must occur near or within an established buffer, nests will receive initial full-time monitoring to ensure that construction activities are not disturbing any nesting activities or active nests. If the biologist determines that the buffer is appropriate, work can continue with regular spot-checks to document the progress of the nest until it is determined that young are no longer dependent on the nest, the nest has been predated, or is deemed no longer active. With the exception of some raptor nests, inactive nests may be dismantled or otherwise destroyed to discourage future nesting in the same location.

APPENDIX E

Historical Resources Technical Report



California State University, Long Beach 2035 Campus Master Plan Update

Historical Resources Technical Report

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1. Introduction

1.1. Report Overview

At the request of Michael Baker International, Architectural Resources Group, Inc. (ARG) has prepared the following Historical Resources Technical Report (Technical Report) for the 2035 Campus Master Plan Update (Master Plan Update) prepared for California State University, Long Beach (CSULB). Located in Long Beach, the CSULB campus occupies a 322-acre site that currently contains more than 80 permanent buildings and structures, associated site and landscape features, and a collection of sculpture and public art.[1] The campus was founded in 1949 and developed in earnest in subsequent decades. Existing facilities largely date to the campus's first punctuated wave of growth during the 1950s and 1960s.

Campus master planning has guided the physical development of CSULB since its formative years by providing a framework for land use, open space, development, and circulation. A campus master plan for CSULB was first adopted in 1953 and substantially augmented in 1963, lending impetus to the campus's present-day architectural character and physical form. These early iterations of the campus master plan were developed by two noted Long Beach architects: Hugh Gibbs and Edward Killingsworth. The campus master plan was updated in subsequent decades to account for changes in the university's programmatic needs. The most recent update to the campus master plan was approved in 2008.[2]

Once the Board of Trustees of the California State University (CSU) approves the Physical Master Plan and certifies the Environmental Impact Report (EIR) for the Master Plan Update, the Master Plan Update will supersede the 2008 campus master plan and will be the principal planning document that guides CSULB's physical campus development. The Master Plan Update "defines and sets the direction for the ongoing development of the campus environment that support the mission, core values, and heritage of the institution."[3] It prioritizes development projects that will be implemented at the campus over the next decade and beyond, including strategies for maintaining and upgrading existing buildings as well as for proposing new and replacement buildings.

The purpose of this Technical Report is to fulfill the requirements of the California Environmental Quality Act (CEQA) as they relate to historical resources, as part of the environmental review process for the Master Plan Update. As described in the CEQA Guidelines, "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment."[4] Toward this end, this report clarifies which resources on the CSULB campus should be considered historical resources for purposes of CEQA, evaluates potential impacts to historical resources resulting from implementation of the Master Plan Update, and identifies mitigation measures that can applied to mitigate impacts to historical resources.

The analysis herein is based in part on the findings of a comprehensive Historic Resource Survey of the CSULB campus that was conducted and documented in 2019 by ARG. The purpose of the 2019 Historic

[1] "2035 Campus Master Plan Update, California State University, Long Beach," prepared by DLR Group, 2022, 220.
[2] Ibid, 215.
[3] Ibid, 16.
[4] California Public Resources Code, Section 21084.1.

Resource Survey was to identify and inventory potential historical resources on the CSULB campus that were constructed through 1980. The cut-off date of 1980, just less than 40 years at the time of the survey, ensured that recent-past resources were considered in the study. Survey findings are intended to help guide current and future planning decisions by providing baseline information about potential historical resources on campus. The survey identified a total of two historic districts and four individual buildings that appear to be eligible for listing in the National Register of Historic Places and/or the California Register of Historical Resources. The resources identified in the survey are considered to be "historical resources" as per Section 15064.5 of the CEQA Guidelines. Survey findings are summarized in *Section 5: Historical Resources on Campus*, of this report. In addition, the Campus-Wide Historic Resource Survey Report is attached to this report as Appendix B.

To supplement the findings of the 2019 survey, ARG conducted an additional site visit of the CSULB campus in August 2022. The purpose of this additional site visit was to identify character-defining features of historical resources identified in the survey, including exterior character-defining features for all eligible resources and interior-character defining features for those resources that are subject to renovation or demolition as part of the Master Plan Update.

The Master Plan Update has the potential to impact historical resources on the CSULB campus in the following ways:

- Renovation projects may result in the alteration of historical resources.
- Replacement projects may result in the demolition of historical resources that have been identified as outdated and subsequent construction of new buildings and facilities in their place.
- New construction projects may result in the construction of new buildings and facilities on under-developed sites adjacent to historical resources, and/or may result in damage to historical resources through ground vibration or soil movement.

Section 6: Project Impacts of this report includes a discussion of potential impacts to historical resources; *Section 7: Mitigation Measures* outlines mitigation measures that, if implemented, may mitigate any such impacts.

1.2. Field and Research Methods

Preparation of this report included the following tasks related to research, documentation, and analysis:

- Site visits to the CSULB campus to document and photograph buildings and other site features in August 2019, March 2020, and August 2022.
- Review of the CEQA Guidelines and other applicable state and federal technical bulletins, regulatory guidelines, and reference materials related to the evaluation of historical resources.
- Review of previous studies and existing documentation related to historical resources on the CSULB campus, including the 2019 Historic Resource Survey.

- Review of historical resource data included in the State of California's Built Environment Resource Directory (BERD).[5]
- Supplemental research related to the history and development of the CSULB campus.
- Review of the Master Plan Update and associated documentation (DLR Group, 2022).
- Summarization of historical resources present on the CSULB campus.
- Analysis of potential impacts to historical resources in accordance with significance thresholds in Section 15064.5 of the CEQA Guidelines (Cal. Code of Regs., Title 14, §15000, et seq).
- Development of mitigation measures to mitigate potential impacts to historical resources.

Research conducted as part of this report was informed by various primary and secondary source materials obtained from the following sources: the CSULB Library, including its Special Collections and University Archives; the Long Beach Public Library; the Los Angeles Public Library; the archives of the *Press-Telegram*, the *Los Angeles Times*, and other periodicals; archival building records and construction documents provided by the CSULB Beach Building Services Department; technical assistance bulletins and materials published by the National Park Service and the California Office of Historic Preservation; various online repositories; and ARG's in-house collection of architectural books and reference materials. A complete list of source materials referenced herein is included in *Section 8: Bibliography* of this report.

1.3. Preparer Qualifications

This report was prepared by ARG staff Katie E. Horak, Principal, and Andrew Goodrich, AICP, Senior Associate, both Architectural Historians and Preservation Planners who meet the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) in the discipline of Architectural History.[6]

[5] The Built Environment Resources Directory (BERD) database provides information about non-archaeological resources in the California Office of Historic Preservation's inventory. For more information, refer to https://ohp.parks.ca.gov/?page_id=30338.
[6] Staff resumes are included as an appendix to this report.

2. Proposed Project

2.1. Purpose of the Master Plan

The Project that is the subject of this assessment is a comprehensive update to the Campus Master Plan for CSULB.

The CSU Board of Trustees requires every CSU campus to have a master plan showing existing and proposed facilities necessary to accommodate a specified enrollment at an estimated planning horizon. The campus master plan reflects the physical requirements of academic programs and auxiliary activities during the planning horizon, and the CSU Board of Trustees recommends periodic re-evaluation of campus master plans in acknowledgement of master planning as a continuous process.

The original architectural and landscape guidelines included in the 1963 Master Plan continue to influence new designs and projects on campus. The guidelines outlined relationships between buildings and open spaces, pedestrian circulation patterns, and entrances, with primary building frontages being oriented toward the central campus. The CSULB campus experienced most of its growth in the 1950s and 1960s and many of the facilities now have major inefficiencies such as plumbing, HVAC costs, and poor accessibility and circulation. Over one-half of the existing building inventory on campus have significant or severe deterioration and critical deferred maintenance issues. In addition, older facilities display generally compromised functionality in terms of operation, maintenance, and user comfort. Many of the interior spaces within these older buildings have layouts and proportions that are not conducive to present-day programmatic needs.

The purpose of the Master Plan Update is to support and advance the CSULB mission, vision, and values by guiding the physical development of the campus and to accommodate changes in enrollment through the horizon year 2035. As previously discussed, master plans are intended to implement proposed improvements to accommodate future change and growth in enrollment through buildout of the Master Plan. Master Plans are based on annual full-time equivalent students (FTES) academic year enrollment projections prepared by each campus in consultation with the CSU Chancellor's Office. CSULB has recently established a goal of increasing online enrollment to serve a larger student population and to expand the programs and services offered, making classes more accessible for students and reducing campus trips.

2.2. Project Description

Overview of the Project

CSULB is proposing a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth, a campus population, and physical development of the campus through the horizon year 2035 (Master Plan Update, proposed project, or project). The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs. The “project” that is analyzed in this EIR includes specific development components identified in the Master Plan Update that are expected to be developed in the near-term (2-5 years), mid-term (6-10 years), and long-term (11 years or more).

Project Location and Setting

CSULB is located within the governmental jurisdictional boundary of the City of Long Beach, in southern Los Angeles County, California. The City of Long Beach is bordered by the cities of Paramount and Lakewood to the north; the Pacific Ocean to the south; the cities of Hawaiian Gardens, Cypress, and Los Alamitos, the unincorporated community of Rossmoor, and the city of Seal Beach in Orange County to the east; and the cities of Los Angeles, Carson, and Compton to the west. CSULB consists of two properties: the CSULB main campus and the Beachside Village property. Figure 2-1 shows the regional location of the CSULB main campus and the Beachside Village property.

The CSULB main campus encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west, as shown in Figure 2-2. The majority of the university’s uses occur on the CSULB main campus, which comprises 84 buildings and eight colleges, totaling approximately 5.8 million gross square feet of buildings. Beachside Village, a CSU-owned student housing complex, encompasses approximately 5 acres and is located approximately 0.6 miles west of the CSULB main campus. Beachside Village is bounded by multi-family residential uses to the west and northwest, commercial uses to the north, east, and southeast, and California State Route 1 (i.e., Pacific Coast Highway) to the south and southwest.

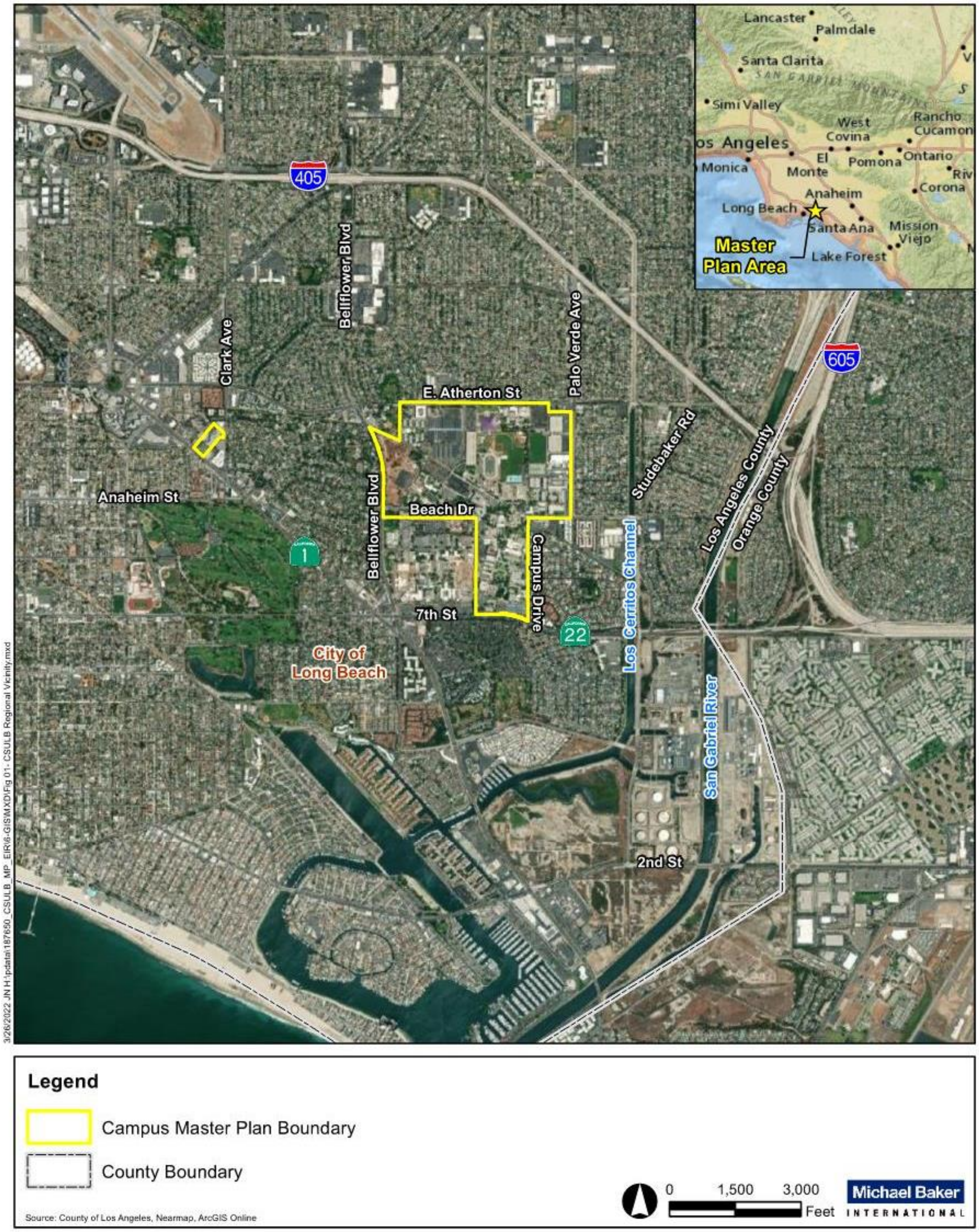

Figure 2-1 Regional Location Map

Figure 2-2 Project Location Map

Proposed Project Characteristics

The Master Plan Update establishes priority development projects to be implemented over the next decade and beyond. The primary strategies for implementing the new master plan include renovation of existing buildings (renovation), demolition and replacement of existing buildings in the same physical location (replacement), construction of new buildings (new construction), and leaving buildings in their existing location and configuration (building to remain). The Master Plan Update also identifies improvements to landscape and open space, sustainability and resiliency, and mobility and parking.

Campus Organization

The Master Plan Update organizes the CSULB main campus into five districts characterized by existing geography and development as well as desired connectivity, placemaking opportunities, and proposed programming. The five districts include the South District, Central District, East District, North District, and West District.

Proposed Master Plan Development

The Master Plan Update provides for planned improvements phased through the 2035 planning horizon. As previously discussed, development under the Master Plan Update would include renovation of existing buildings, demolition, and replacement of existing buildings in the same physical location, and construction of new buildings. Individual projects have been identified that are expected to be developed in the next 10 years and are referred to as near-term (2-5 years) and mid-term (6-10 years) projects. The individual projects were identified for possible implementation based on a variety of factors, such as funding, building age, consolidation of programming, etc. Of the individual development projects, it is estimated that 13 would be near-term and 17 would be mid-term. These projects, listed in below, are analyzed in this EIR. For a description of the projects, refer to Table 2-11 in Chapter 2, Project Description, of the EIR.

PROPOSED NEAR-TERM AND MID-TERM PROJECTS ANALYZED IN THIS EIR	
NEAR-TERM PROJECTS	MID-TERM PROJECTS
Engineering Replacement Building	College of the Arts Replacement Building
New Parkside Housing Office	New 7th St. Community Outreach Facility
Faculty and Staff Housing	Jack Rose Track / Commencement Facilities
USU Renovation / Addition and Cafeteria Replacement	Walter Pyramid Renovation
Hillside College Renovations / Addition	Pedestrian/Bike Lane Improvements
Beachside Housing	Fine Arts 4 Renovation
Aquatics Center and Pool Renovation	Fine Arts 1 / 2 Renovation
Lecture Hall 150-151 Renovation	Liberal Arts 5 Renovation

PROPOSED NEAR-TERM AND MID-TERM PROJECTS ANALYZED IN THIS EIR	
NEAR-TERM PROJECTS	MID-TERM PROJECTS
Student Health Services Addition	Theater Arts Renovation
Corporation Yard Renovations	University Theatre Renovation
Microbiology Student Success Center Renovation	Baseball Field Conversion to Multi-Use Field
Friendship Walk Stairs Revitalization	Central Plant Decarbonization
Improved Campus Entrance and Gateway	Univ. Music Center Renovation/ Addition
	Nursing Building Renovation (CAPS)
	Engineering Tech Renovation
	Relocated Archery Field
	Redefining the Campus Quad

The Master Plan Update also includes a number of projects that are expected to be developed in the long-term (11 years or more). While these projects are identified in the Master Plan Update, they will not be discussed or analyzed in further detail in the EIR as it would be speculative to estimate project-level details for those projects at this time. Refer to the Master Plan Update for details on the long-term projects.

Construction

Construction of the planned improvements would occur in phases and would be overlapping through the 2035 planning horizon. The majority of construction activities are anticipated to occur during daytime hours, generally from 7:00 a.m. to 7:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 6:00 p.m. on Saturday and Sunday. It is anticipated that work outside of these hours may be required in order to maintain construction schedules and minimize any potential road detours. All construction activities would comply with Section 8.80.202 of the Long Beach Municipal Code regarding construction noise.

As previously discussed, the identified individual development projects have been categorized into types of proposed development and would typically be implemented in a similar manner (i.e., similar construction scenarios). For a list of the potential construction activities, see Table 2-15 in Chapter 2, Project Description, of the EIR.

Construction Staging

Construction staging and laydown areas for individual development projects will be determined during the preconstruction phase. Construction staging and laydown areas would generally be located in surface parking lots or within landscaped or lawn areas, as feasible, and would be selected based on availability of space within an individual project site, or proximity to the individual project site. Should construction staging and laydown areas outside of the boundaries of the individual project site be necessary, they would be fenced off and temporarily unavailable to park or recreate in. Access points to the campus would be maintained, and parking spaces and/or landscaped and lawn areas used for construction staging and laydown would be restored following construction activities.

3. Regulatory Environment

3.1. National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. Established under the auspices of the National Historic Preservation Act of 1966, the National Register is administered by the National Park Service (NPS) and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Eligibility for listing in the National Register is addressed in National Register Bulletin (NRB) 15: *How to Apply the National Register Criteria for Evaluation*. NRB 15 states that in order to be eligible for the National Register, a resource must both (1) be historically significant, and (2) retain sufficient integrity to adequately convey its significance.

Significance is assessed by evaluating a resource against established eligibility criteria. A resource is considered significant if it satisfies any one of the following four National Register criteria:[7]

- Criterion A (events): associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B (persons): associated with the lives of significant persons in our past.
- Criterion C (architecture): embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D (information potential): has yielded or may be likely to yield, information important in prehistory or history.

Once significance has been established, it must then be demonstrated that a resource retains enough of its physical and associative qualities – or *integrity* – to convey its significance. Integrity is best described as a resource's "authenticity" as expressed through its physical features and extant characteristics. Generally, if a resource is recognizable as such in its present state, it is said to retain integrity; if it has been extensively altered, then it does not. Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by the NPS:

- Location (the place where the historic property was constructed or the place where the historic event occurred);
- Setting (the physical environment of a historic property);
- Design (the combination of elements that create the form, plan, space, structure, and style of a property);

[7] Some resources may meet multiple criteria, though only one needs to be satisfied for National Register eligibility.

- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular manner or configuration to form a historic property);
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory);
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time);
- Association (the direct link between an important historic event/person and a historic property).

Integrity is evaluated by weighing all seven of these aspects together and is ultimately a "yes" or "no" determination: a resource either retains integrity, or it does not.[8] Some aspects of integrity may be weighed more heavily than others depending on the type of resource being evaluated and the reason(s) for the resource's significance. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after it has been concluded that the resource is in fact significant.

3.2. California Register of Historical Resources

The California Register of Historical Resources (California Register) is an authoritative guide used to identify, inventory, and protect historical resources in California. Established by an act of the State Legislature in 1998, the California Register program encourages public recognition and protection of significant architectural, historical, archeological, and cultural resources; identifies these resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA.

The structure of the California Register program is similar to that of the National Register, though the former more heavily emphasizes resources that have contributed specifically to the development of California. To be eligible for the California Register, a resource must first be deemed significant under one of the following four criteria, which are modeled after the National Register criteria listed above:

- Criterion 1 (events): associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- Criterion 2 (persons): associated with the lives of persons important to local, California, or national history;
- Criterion 3 (architecture): embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values;
- Criterion 4 (information potential): has yielded, or has the potential to yield, information important to the prehistory or history of the local area, state, or the nation.

Like the National Register, the California Register also requires that resources retain sufficient integrity to be eligible for listing. A resource's integrity is assessed using the same seven aspects of integrity used for

[8] Derived from NRB 15, Section VIII: "How to Evaluate the Integrity of a Property."

the National Register. However, since integrity thresholds associated with the California Register are generally less rigid than those associated with the National Register, it is possible that a resource may lack the integrity required for the National Register but still be eligible for listing in the California Register.[9]

Certain properties are automatically listed in the California Register, as follows:[10]

- All California properties that are listed in the National Register;
- All California properties that have formally been determined eligible for listing in the National Register (by the State Office of Historic Preservation (OHP));
- All California Historical Landmarks numbered 770 and above; and
- California Points of Historical Interest which have been reviewed by the State Office of Historic Preservation and recommended for listing by the State Historical Resources Commission.

Resources may be nominated directly to the California Register. State Historic Landmarks #770 and numbered subsequently are also automatically listed in the California Register. There is no prescribed age limit for listing in the California Register, although OHP technical assistance guidelines state that resources less than 50 years old may be considered for listing as long as sufficient time has have passed "to obtain a scholarly perspective on the events or individuals associated with the resource."[11]

3.3. City of Long Beach Local Criteria

The City of Long Beach administers a local historic preservation program for historic and cultural resources within the city limits. This program includes mechanisms for designating individual properties (known as Historic Landmarks) and concentrations of resources (known as Historic Districts) at the local level. While CSULB is located within the Long Beach city limits, CSULB is an entity of the CSU, a state agency, and the campus is state-owned property; therefore, development on campus is not bound by local policies, regulations, or ordinances governing historic resources. For this reason, ARG did not evaluate potential historic resources on the CSULB campus against local criteria.

3.4. CEQA and Historical Resources

CEQA Thresholds

Enacted in 1970, CEQA is the principal statute mandating environmental assessment of discretionary land use and development projects in California. The primary goal of CEQA is to (1) evaluate a project's

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[9] California Office of Historic Preservation, *Technical Assistance Series #6: California Register and National Register: A Comparison* (Sacramento, CA: California Department of Parks and Recreation, 2001), 2.
[10] California Public Resources Code, Division 5, Chapter 1, Article 2, § 5024.1.
[11] California Office of Historic Preservation, *Technical Assistance Series #6: California Register and National Register: A Comparison* (Sacramento, CA: California Department of Parks and Recreation, 2001), 3.

potential to have an adverse impact on the environment, and (2) minimize these impacts to the greatest extent feasible through the analysis of project alternatives and, if needed, implementation of mitigation measures.

Historical resources are considered to be a part of the environment and are thereby subject to review under CEQA. Section 21084.1 of the California Public Resources Code (PRC) states that for purposes of CEQA, "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment."[12] This involves a two-part inquiry. First, it must be determined whether the project involves a historical resource. If it does, then it must be determined whether the project may result in a "substantial adverse change in the significance" of the historical resource.

Guidelines related to historical resources were codified in October 1998 as Section 15064.5 of the CEQA Guidelines. These guidelines state that for purposes of CEQA compliance, a "historical resource" shall be defined as any one of the following:[13]

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.
2. A resource included in a local register of historical resources, or identified as significant in a qualified historical resource survey, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrate that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources.

Once it has been determined that a historical resource is present, it must then be determined whether the project may result in a "substantial adverse change" to that resource. Section 5020.1 of the PRC defines a substantial adverse change as the "demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired." Furthermore, according to Title 14 of the California Code of Regulations (CCR), the significance of a historical resource is impaired when a project:

A. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

B. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the

[12] California Code of Regulations, Title 14, Chapter 3, Section 15064.5.
[13] Ibid.

Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

C. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

In general, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings is considered to have impacts that are less than significant.[14]

Secretary of the Interior's Standards

The *Secretary of the Interior's Standards for the Treatment of Historic Properties* (the "Standards") provide guidance for reviewing proposed projects that may affect historical resources. The intent of the Standards is to assist the long-term preservation of a property's significance through the preservation, rehabilitation, and maintenance of historic materials and features. The Standards pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. The Standards also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction.

From a practical perspective, the Standards have guided agencies in carrying out their historic preservation responsibilities, including state and local officials, when reviewing projects that may impact historic resources. The Standards have also been adopted by state and local jurisdictions across the country.

In addition, the Standards are a useful analytic tool for understanding and describing the potential impacts of substantial changes to historical resources. However, under California environmental law, compliance with the Standards does not necessarily determine whether a project would cause a substantial adverse change in the significance of an historical resource. Rather, projects that comply with the Standards benefit from a regulatory presumption that they would have a less than significant adverse impact on a historical resource.[15]

Specifically, Section 15064.5(b)(3) of the CEQA Guidelines states:

> *Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.*

[14] State CEQA Guidelines, 15064.5(b)(3).
[15] Ibid.

The Standards were issued by the National Park Service and are accompanied by Guidelines for four "treatments" for historical resources, including: (1) preservation; (2) rehabilitation; (3) restoration; and (4) reconstruction.[16] The applicable treatment for the Project is rehabilitation.

The Standards for Rehabilitation are:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

[16] National Park Service Technical Preservation Services. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. 2017. Accessed June 2022. https://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf

Rehabilitation Standards for Historic Districts

Future projects that involve new infill construction and/or the demolition of contributing features to a historic district have the potential to impact the historic district. In some instances, it is possible for limited alteration or demolition to take place within a historic district without compromising the integrity of the district. For potential impacts to be considered a “substantial adverse change” to a district for purposes of CEQA, it must be demonstrated that the new construction and/or the removal of contributing buildings associated with a project would result in the physical alteration of a district such that its ability to convey its significance and eligibility for designation would be threatened.

Typically, if new buildings within a historic district are designated to be compatible with, but differentiated from the district using the Standards for Rehabilitation, then projects will not result in a “substantial adverse change” to the district. Similarly, if a district retains a majority[17] of its contributing features and integrity, then projects will typically not result in a “substantial adverse change” to the district. Analysis should be conducted on a case-by-case basis to consider all potential impacts that a project may have on a district including the percentage of resources retained and lost, historic spatial relationships and circulation patterns, scale and massing, and visibility from public vantage points.

[17] There is no prescribed threshold of contributing elements that is needed to constitute a historic district; however, best professional practices recommend that a historic district should retain, at minimum, 60 percent of its contributing features to retain its eligibility for listing in the California Register.

4. Summary of Campus History and Development

Following is a summary historic context for the CSULB campus. The information included herein was excerpted and adapted from the campus-wide Historic Resource Survey Report (2019, ARG).

For more detailed information about the history of the CSULB campus, as well as the contexts and themes that were developed to evaluate resources, refer to the Historic Resource Survey Report, which is attached to this report as Appendix B.

Development History of CSULB

Institutional Origins

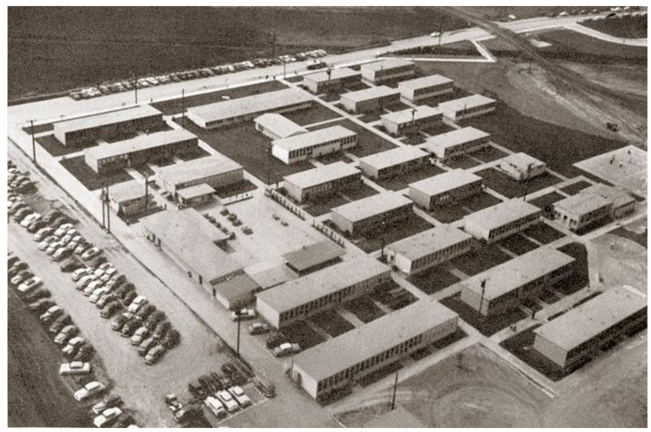
What is now known as CSULB was established shortly after the end of World War II. Confronted with unprecedented population growth and rapid suburbanization in the years after World War II, California's public colleges and universities struggled to keep pace with sharp increases in student enrollment. New campuses were founded at locations across the state that were witnessing significant increases in population. Specifically, new CSU campuses were founded at Los Angeles (1947), Sacramento (1947), and Long Beach (1949). Yet more campuses were added in subsequent years at Fullerton (1957), Hayward (1957), Stanislaus (1957), Northridge (1958), Sonoma (1960), San Bernardino (1960), and Dominguez Hills (1960). The growth of California's system of public colleges and universities eventually led to the development of the Donahoe Higher Education Act of 1960, which codified the recommendations of the California Master Plan for Higher Education and assigned different functions to each of California's three institutions of higher learning: the University of California (UC), the California State College system (CSC - later re-branded as California State University, or CSU), and the California Community College system.

CSULB originated within this context of steady institutional expansion. In 1949, the California legislature passed Assembly Bill 8, which allocated $125,000 to establish a new four-year state college campus to serve the residents of southeast Los Angeles and Orange counties – two areas that were witnessing exceptionally swift growth after World War II.[18] Initially known as the Los Angeles-Orange County State College, the institution opened in the fall of 1949 with 160 students and 19 faculty members.[19] At this time, a site had not been selected and the institution lacked permanent facilities; it initially operated out of a recently-completed apartment complex at 5401 East Anaheim Road that had been converted into a makeshift campus.[20] There, living rooms passed as lecture halls, bedrooms were used as offices, and garages were used for more intensive purposes like art studios and science labs.[21]

Meanwhile, college administrators sought a site for a permanent campus. Fullerton, Santa Ana, Lakewood, and Long Beach all expressed interest in hosting the campus; in 1950 officials settled on a 320-

[18] David Bernstein and Kaye Briegel, "California State University, Long Beach – A Historical Overview: 1949-1989," 1989, accessed Sept. 2019 via the CSULB Special Collections and University Archives, 1.
[19] Ibid, 3.
[20] "Long Beach Posts Sign on Site of its College," *Los Angeles Times,* Jun. 9, 1950.
[21] Bernstein and Briegel (1989), 2-4.

acre swath of land in the eastern section of Long Beach, much of which was owned by the Bixby family.[22] The site comprised a large, T-shaped area that was punctuated by gently rolling hills and anchored by present-day Seventh (south) and Atherton (north) streets. Bisecting the center of the site was Anaheim Road, which charted a north-south course at the transect of the "T" and divided the campus into two halves: north (Lower Campus) and south (Upper Campus). By 1951, student enrollment had increased significantly, and as a result the repurposed apartment complex serving as the makeshift campus could no longer adequately accommodate the needs of the growing institution. Dozens of temporary, wood-frame structures that resembled army barracks were erected at the east end of Lower Campus while a permanent campus came to fruition.[23]



Prior to the development of a permanent campus, CSULB was housed in temporary quarters including a repurposed apartment complex on Anaheim Road (left) and a collection of temporary wood-frame structures (right) (CSULB)

Genesis of a Permanent Campus and the 1953 Master Plan

The seeds of a permanent campus were sown in October 1950, when noted Long Beach architect Hugh Gibbs was selected to develop the institution's first-ever master plan. The master plan was envisioned as a blueprint that would guide the college's physical development in a cogent and cohesive manner, accommodating its programmatic needs while also working within the fiscal parameters set forth by the state. Toward this end, Gibbs developed a master plan that was rooted in the following core principles:

> It was determined that the overall feeling of the design should stress simplicity without bleakness, dignity without sternness, be straight-forward, emanating a feeling of warmth and friendliness through the use of color and texture in the materials of construction. This approach dares not to be a timid one if it is to serve as an environmental influence in encouraging the students to constructive thought and action. In like manner, if a proper character and atmosphere can be developed on the campus, it will contribute immeasurably to the creative and cultural development of the students.[24]

[22] Bernstein and Briegel (1989), 4; "Long Beach Takes Steps to Buy Site for College," *Los Angeles Times*, Feb. 25, 1950.
[23] Bernstein and Briegel (1989), 4.
[24] "LBSC Proposed Campus, Hugh Gibbs, AIA," n.d., accessed Sept. 2019 via the CSULB Special Collections and University Archives.

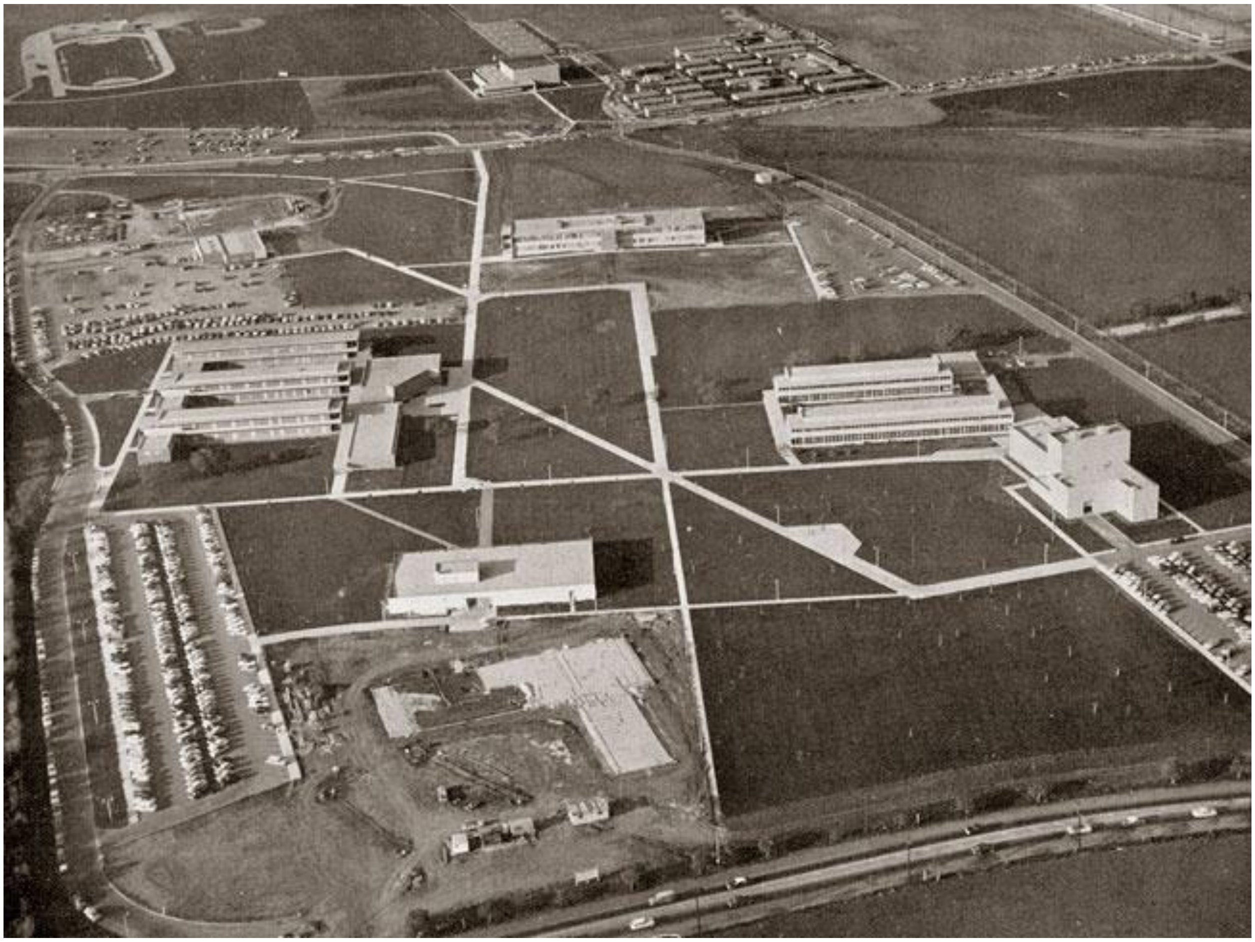
The Gibbs master plan laid the groundwork for the physical form of the CSULB campus as it exists today. It called for all buildings to be constructed of reinforced concrete, a durable material that was intended to evince a sense of permanence. Exterior walls would consist of exposed concrete and would be periodically accentuated by warmer materials like brick, plaster, terra cotta, and metal to add texture and visual interest. Emphasis was placed on orienting classrooms so that they would optimize natural light, and on enhancing the pedestrian experience through features such as covered breezeways and integral landscaping. Gibbs called for most development to be located in the Upper Campus, around a central quadrangle whose axis was tilted to make the most of natural light and topographic conditions.[25]

The Fine Arts Unit (top) and Library (bottom – now Academic Services) were among the first permanent buildings to be constructed at the CSULB campus in the mid-1950s (CSULB)

Gibbs's master plan was approved in 1953.[26] Construction of the campus's first permanent buildings began shortly thereafter, with several completed in 1955; others were subsequently added as resources permitted. While a few of these early buildings were designed by Gibbs himself, most were designed by staff architects employed by the State Division of Architecture, using standardized design templates that were replicated across the CSU system as a way of keeping construction costs at a minimum. The central quad also began to take shape at this time. Consistent with Gibbs's vision, most campus development was concentrated in the area to the south of Anaheim Road (Upper Campus); north of Anaheim Road, the

[25] "LBSC Proposed Campus, Hugh Gibbs, AIA," n.d., accessed Sept. 2019 via the CSULB Special Collections and University Archives; "Campus-Wide Historic Context for California State University, Long Beach," prepared by Dudek for the CSULB Office of Physical Planning and Sustainability, Jun. 2019, 21.
[26] Ibid, 22.

Lower Campus remained sparsely developed at this time apart from physical education facilities, athletic fields, and remnants of the temporary structures that housed the institution in its nascence.[27]



Aerial view of the CSULB campus, ca. 1950s (CSULB)

Implementation of the Gibbs master plan marked a major step forward in the quest to develop a permanent campus. However, there were problems with the Gibbs master plan that became evident not long after it was adopted. Most pressing were issues related to capacity. Per the direction of administrators, Gibbs had developed the master plan to accommodate 5,000 full-time students, but student enrollment significantly surpassed early projections and swelled to 10,000 by the fall of 1960.[28] Issues also arose with the college's reliance on the State Division of Architecture to execute Gibbs's vision. Faculty, students, and others increasingly expressed dissatisfaction with the buildings designed by the State Division of Architecture, with many grousing that these buildings were bland and ubiquitous.[29]

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[27] "Projected Master Plan for Long Beach State College," prepared by Killingsworth-Brady-Smith & Associate, 1963, accessed Sept. 19 via the Long Beach Special Collections and University Archives, 2.
[28] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 22.
[29] Ibid, 24.

The Gibbs plan also did not include any provisions for student housing, which became a topic of contention as enrollment increased. In response, two dormitories – Los Alamitos and Los Cerritos halls – were built in 1959, in a peripheral area to the north and west of the academic core. These, too, were designed by the State Division of Architecture, and almost immediately fell short of meeting demand.[30]

Growth, Expansion, and the 1963 Campus Master Plan

These issues underscored the pressing need for a new path forward. In 1961, the Board of Trustees for the CSU system had grown so dissatisfied with the quality of design at its campuses that it decided to discontinue using the State Division of Architecture and instead recruit private practice architects to oversee matters related to design and construction.[31] At the Long Beach campus, the noted local architectural firm of Killingsworth-Brady-Smith and Associates was engaged in 1962 to serve as consulting campus architect – a role that the firm, and specifically Killingsworth, continuously filled until he eventually retired in 2001.[32] Killingsworth's lengthy tenure provided the Long Beach campus with a cohesive aesthetic that is not found at many other campuses within the CSU system.

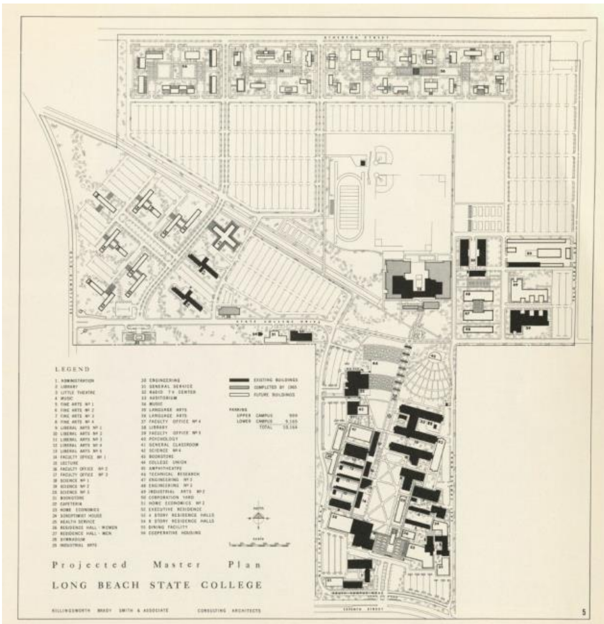
Killingsworth's first order of business was to revise the master plan for the campus, incorporating successful elements of the previous (Gibbs) plan but also accounting for its shortcomings. Toward this end a new master plan, developed by Killingsworth, was adopted in January 1963.[33] It aspired "to recognize the many fine features of the original campus…[so that the completed college] will have the appearance of a total building program rather than one of parts."[34] The 1963 master plan was decidedly more forward-reaching than its forebearer, introducing a number of new design ideas that improved the student experience and continue to exert influence over the physical form of the campus to this day. The 1963 master plan was developed to accommodate an eventual campus population of 20,000 students.

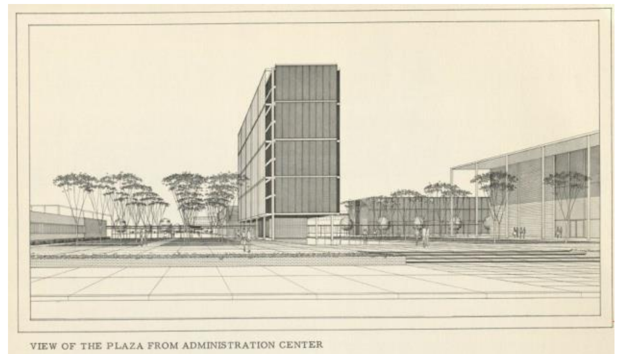
Key elements of Killingsworth's master plan included a monumental new entrance that approached the campus from the south, via Seventh Street; a formal plaza at the terminus of this entrance, dominated by a commanding nine-story "theme building" that would showcase the campus's prevailing style of architecture; a three-story student union that would be tucked into a hillside site to preserve important views; and additional parking. The plan also called for the closure of Anaheim Road (now State College Drive), eliminating automobile traffic from the campus core, and laid the groundwork for a cohesive architectural vocabulary that would be applied across the campus and improve its quality of design.[35]

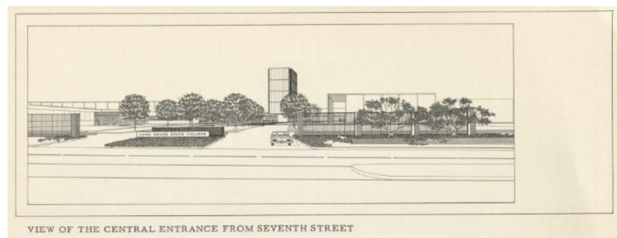
The symbiotic relationship between buildings, landscapes, and site features was a resonant theme in Killingsworth's master plan. Notably, the plan called for the incorporation of sculpture, pools, fountains, and artwork throughout the central quadrangle "to create visual excitement and stimulation," the planting of trees and vines to counterbalance the rigidity of buildings, and the platting of a 60-foot-wide axial promenade between the Library (south) and the Physical Education building (north) to enhance the pedestrian experience.[36] To Killingsworth, landscaping played just as much a role in shaping the campus's

[30] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 25.
[31] Ibid, 24.
[32] Ibid, 28, 52.
[33] "Campus Master Plan OK'd at Long Beach," *Los Angeles Times*, Jan. 27, 1963.
[34] "Projected Master Plan for Long Beach State College" (1963), 7.
[35] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 28.
[36] "Projected Master Plan for Long Beach State College" (1963), 9-11.

character as did its building program, and contributed to creating a sense of place. Many of the campus's landscapes were designed by noted landscape architect Edward "Ed" Lovell of Long Beach, who in 1964 was selected to collaborate with Killingsworth and serve as CSULB's consulting landscape architect.[37]







Renderings included in the 1963 Campus Master Plan prepared by Killingsworth-Brady-Smith and Associates (CSULB Library, Special Collections and University Archives)

The introduction of public art to the CSULB campus was another key component of the Killingworth master plan, and like landscaping it was seen as a means of enhancing the campus's sense of place. Toward this end, Killingsworth worked in concert with fine arts professor Kenneth Glenn and College President Carl McIntosh to organize a sculpture symposium on the campus. This idea was supported by McIntosh and other administrators, and Glenn thereafter "began inviting top artists from around the world to design sculptures for the campus" in concert with the world-renowned International Sculpture Symposium, a worldwide public art exhibition that was established in 1959.[38]

In 1965, five sculptors were selected to participate in the symposium including Andre Bloc of France, Kosso Eloul of Israel, Gabe Kohn of the United States, J.J. Beljon of Holland, and Eduard Palozzi of England, though the lineup of participating sculptors was later amended.[39] Each artist was charged with creating a sculpture at CSULB, monumental in both scale and concept, which would first be showcased as part of the international exhibition and then donated to the university, becoming a permanent part of its built environment.[40] Each participating artist "produced massive abstract pieces made from concrete, earth and steel," all of which stood as bold, indelible monuments in their own right and reflected the creative

[37] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 28.
[38] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 55.
[39] Ibid, 56.
[40] Henry J. Seldis, "Top Sculptors May Carve New Look for Long Beach," *Los Angeles Times,* Feb. 21, 1965.

prowess of their respective designer.[41] The outdoor symposium lasted for twelve weeks in 1965. It marked the first time that the International Sculpture Symposium was hosted in the United States and, as such, helped to promote the relatively-young CSULB campus to an international audience.[42]

Killingworth's master plan also addressed a wide void in the previous iteration of the master plan: student housing. It specifically called for the construction of a new dormitory complex to the northwest of the academic core, next to two existing dormitory buildings (Los Cerritos and Los Alamitos halls, both constructed 1959) and where Hillside College is located today. As described in the 1963 master plan:

> Housing in dormitories is planned for 5,000 students on the west portion of the lower campus. This housing will be medium high rise structures with the primary concern directed towards making the living personal and warm. The buildings are set on a residential type street which is separated from the academic life of the campus and directly connected to the cooperative housing [Los Cerritos/Los Alamitos Halls] so that there will be an interaction between these two areas. Food Services are in a separate building located just north of the existing dormitories.[43]

This lent impetus to the eventual development of two residential colleges on campus: Hillside College (1969) and Parkside College (1985), as well as the International House (1987).

Conceptual plan for the Residence Hall Development Program, now Hillside College, ca. 1960s (CSULB Library Special Collections and University Archives)

Killingsworth continued to serve as the institution's consulting campus architect for the duration of the twentieth century. In this capacity he appears to have been more involved in the oversight of architectural endeavors than in the design of buildings themselves. Under this arrangement, private

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41 Ibid.

42 Carolina Miranda, "Why the Getty is Giving Cal State Long Beach's 1960s Sculpture Park a New Look," *Los Angeles Times*, Mar. 26, 2015.

43 "Projected Master Plan for Long Beach State College" (1963), 13.

practice architects would design new buildings, and would then submit the plans to Killingworth for his input and approval. Most post-1963 buildings on the CSULB campus were designed in this vein. On occasion, though, Killingsworth's firm was directly involved in the design of campus buildings and facilities including the University Student Union (1972), as well as buildings that fall outside the scope of this analysis including International House (1987) and the Horn Center/University Art Museum (1993).[44] The firm was also the architect of record for several renovation projects, including additions to the Soroptimist House (1964) and the University Bookstore (1966).

Subsequent Campus Development

By the 1970s, the initial wave of growth at CSULB was tempered by various factors including declining enrollment and an economic recession. However, the campus did continue to witness additional growth and development at this time, albeit at a somewhat slower place and in a less cohesive manner. Substantial additions to the campus included a new library (1972), then the largest in the CSU system; and the University Student Union (1972), which sat at the center of campus and was the heart of student life. Also in 1972, the CSU Board of Trustees elevated the institution from a college to a university. California State College, Long Beach (CSCLB) became California State University, Long Beach (CSULB).


The Earl Burns Miller Japanese Garden (left) and the Walter Pyramid (right) represent notable additions to the campus from the 1980s and '90s, respectively (CSULB)

The campus continued to expand in the 1980s and '90s, and it was during this time that several of its iconic buildings and sites were completed. Landscape architect Ed Lovell designed the 1.3-acre Earl Burns Miller Japanese Garden near the western perimeter of campus, which was dedicated in 1981.[45] In 1994, the eighteen-story Walter Pyramid was constructed at the north end of campus and instantly became an iconic symbol of both CSULB and the City of Long Beach. Its distinctive, cobalt-blue exterior can be seen

[44] International House and the Horn Center were not evaluated in this survey because they post-date the end date of 1980.
[45] The cut-off date of 1980, just less than 40 years at the time of the survey, ensured that recent-past resources were considered in the study.

from miles in all directions. Each side of the Walter Pyramid measures 345 feet, making it a mathematically true pyramid – one of only four such structures in the United States.

In the 2000s and 2010s, CSULB experienced steady increases in student enrollment. With this growth came the construction of several new signature buildings for the campus. Notable building projects that have been completed in recent years include the Molecular and Life Science Center (2004), the Student Recreation and Wellness Center (2010), the Hall of Science (2011), the Shakarian Family Student Success Center and Bob Murphy Access Center (2019), Alumni Center (2021), Parkside North Student Housing (2021), Hillside Gateway (2021), and the Horn Center/Kleefield Contemporary Art Museum (2021).

Associated Trends in Architecture

Mid-Century Modern

Most of the buildings at CSULB ascribe to a common institutional derivative of the Mid-Century Modern style, which was applied to new buildings across the campus during its formative years. Conceived by Hugh Gibbs, and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is firmly grounded in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s.[46] It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was incorporated into both high-style buildings and vernacular structures and was employed by architects, developer-builders, and lay contractors alike.

Various experiments in Modern architecture that were introduced in the early twentieth century lent impetus to the Mid-Century Modern style. The International Style, which originated in Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament.[47] International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made."[48] At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving J. Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.[49]

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[46] SurveyLA, Citywide Historic Context Statement Summary Tables, "Architecture and Engineering, 1850-1980."
[47] Natalie W. Shivers, "Architecture: A New Creative Medium," in *LA's Early Moderns: Art/Architecture/ Photography* (Los Angeles: Balcony Press, 2003), 132.
[48] Mark Rozzo, "Architect Dion Neutra, Who Fought to Save His Father's Iconic Buildings, Dies, *Los Angeles Times*, Nov. 25, 2019.
[49] Mark Rozzo, "Architect Dion Neutra, Who Fought to Save His Father's Iconic Buildings, Dies, *Los Angeles Times*, Nov. 25, 2019, 124.

Mid-Century Modern architecture draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in American Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective contexts. In Southern California, this was manifest in an architectural vocabulary defined by honest structural and material expression, wide expanses of glass, and open, free-flowing interior plans.[50] Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of renowned architects like Frank Lloyd Wright and John Lautner.

Southern California was a locus of innovation with respect to Modernism – arguably more than anywhere else in the nation. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of post-World War II Modernism.[51] Entenza foresaw the extraordinary demand for new housing that affected American society after World War II and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.[52]

Different variants of the Mid-Century Modern style emerged as the movement gained traction and entered into the mainstream. The style was favored by large-scale institutional properties like colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism's emphasis on rational, economic buildings that could be produced en masse was well suited to these institutions, which needed to expand quickly and within the confines of public funding sources and finite capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by these institutions in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.[53]

The group of architects who shaped and melded the CSULB campus during its formative years developed a dialect of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by architect Hugh Gibbs, who through the original (1953) master plan established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Ed Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to unify existing campus buildings with

[50] SurveyLA, Citywide Historic Context Statement Summary Tables, "Architecture and Engineering, 1850-1980."
[51] "National Register of Historic Places Multiple Property Documentation Form, The Case Study House Program: 1945-1966," prepared Dec. 2012, revised Mar. 2013.
[52] John Entenza, "Announcement: The Case Study House Program," Arts and Architecture (Jan. 1945), 37-39.
[53] Ibid.

new construction and ensure that all development on campus was orderly and cohesive.[54] Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.[55]

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system
- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often in the form of courtyards or plazas

Examples of the Mid-Century Modern style include (clockwise, starting at top left): Academic Services Building (1954), McIntosh Humanities Building (1967), Psychology Building (1970), University Student Union (1972) (photos by ARG)

[54] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 33.
[55] Ibid, 33-39.

New Formalism

By the late 1960s, some architects designed buildings that were still firmly rooted in the Mid-Century Modern movement but also exhibited abstracted Classical proportions and motifs. This derivative of Mid-Century Modern architecture is known as the New Formalist style. New Formalism represented a reaction to, but not a complete diversion from, the orthodoxy of postwar Modern architecture and the International Style. Its exponents exercised some creative license by incorporating elements of Classical architecture like strict symmetry, arches, and colonnades, albeit in abstract ways. Its formal aesthetic evinced a sense of monumentality and permanence that was favored by banks and financial institutions, civic institutions (especially those related to the visual and performing arts), and colleges and universities.

Character-defining features of New Formalism include the following:

- Strict symmetry and formality
- Buildings are often monumental in size and appearance
- Flat roof, often with a heavy, projecting overhang, emulating a simplified cornice
- Smooth wall surfaces
- Colonnades comprising full-height columnar supports
- Incorporation of arches and rounded openings
- Minimal surface ornament and decorative details
- Integrated landscapes, often in the form of interior courtyards or plazas

The Theatre Arts Building (1972) is an example of the New Formalist style on the CSULB campus (photos by ARG)

5. Summary of Historical Resources on Campus

5.1. Designated Historical Resources

There are currently no built historical resources on the CSULB campus that are listed in the National Register or California Register, or on a local historic resource register.[56] For information related to cultural and archaeological resources on campus, refer to the Archaeological Resources Technical Report appended to the EIR.

5.2. Eligible Historical Resources

As noted, a Historic Resource Survey of the CSULB campus was conducted in 2019. The purpose of the survey was to identify and inventory built historical resources on the CSULB campus that were constructed through 1980. Resources that were identified in the survey as appearing eligible for federal (NRHP) and/or state (CRHR) listing are treated as "historical resources" as per Section 15064.5 of the CEQA Guidelines.

The survey identified four individual buildings and two historic districts, each of which is discussed below.

Individually Eligible Resources

Four buildings were identified in the survey as individually eligible for listing in the National Register and California Register including the McIntosh Humanities Building (MHB), the Psychology Building, the Theatre Arts Building (TA), and the University Student Union (USU). Each is discussed below.

RESOURCE NAME	YEAR BUILT	ARCHITECT	ELIGIBLE FOR NRHP	ELIGIBLE FOR CRHR
McIntosh Humanities Building (MBH)	1967	California State Division of Architecture	X	X
Psychology Building	1970	Gibbs and Gibbs	X	X
Theatre Arts Building (TA)	1972	Frank Homolka and Associates	X	X
University Student Union (USU)	1972	Killingsworth-Brady and Associates	X	X

<u>McIntosh Humanities Building (1967)</u>

The MHB was found to be individually eligible for listing in the National Register and California Register under Criterion C/3, in the area of Architecture and Design.

[56] As noted in Section 3.3, CSULB is an entity of the State of California and is not subject to local policies, regulations, or ordinances governing historic resources

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting and specifically embodies characteristics of the style that were developed specifically for the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the building include simple massing and geometric forms, a flat roof, a material palette comprising Norman brick and painted concrete, bands of metal sash windows, and metal *brise soleil* with rectilinear forms. At nine stories tall, this building towers over other development in this area of the CSULB campus. It was intended to be a bold architectural statement and was intended to serve as the "theme building" for the rest of the campus, showcasing the architectural vocabulary for CSULB that was developed by master plan architect Ed Killingsworth and codified in the 1963 Campus Master Plan. This building exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and for this reason it is valuable to a study of the postwar Modern architectural movement.

The MHB appears to be unaltered. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association, and thus retains sufficient integrity for listing in the National Register and California Register.

The period of significance for the MHB has been identified as 1967, corresponding to the building's original date of construction.

The following have been identified as character-defining features of the MHB:

- Compact, rectangular plan
- Building set on a shallow plinth with concrete steps
- Recessed ground story with squared concrete column supports
- Open breezeway through the ground story
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Flush-mounted aluminum windows and metal spandrel panels (east, west façades)
- Metal *brise soleil* (east, west façades)
- Lack of surface ornament and decorative details

No interior character-defining features were identified as the primary interior spaces are utilitarian and do not contribute to the architectural significance of the building.

Psychology Building (1970)

The Psychology Building was found to be individually eligible for listing in the National Register and California Register under Criterion C/3, in the area of Architecture and Design.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically embodies characteristics of the style that were developed specifically for the CSULB campus. Character-defining features of the Mid-Century

Modern style that are expressed in the design of the building include simple massing and geometric forms, a flat roof, a simple material palette comprising Norman brick and painted concrete, and a dearth of applied ornament. While the building's design ascribes to the campus architectural vocabulary, it also exhibits a degree of creativity through its strong vertical orientation, complex massing comprising intersecting geometric volumes, tall exterior stair shafts with deep incisions, and glass curtain wall construction. These features provide the building with a level of articulation that renders it a notable example of Mid-Century Modern architecture as applied to an institutional building, and for this reason it is valuable to a study of the postwar Modern architectural movement.

The building also satisfies Criterion C/3 as a notable work of master architects Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs). Its design represents the thoughtful balance between Modern orthodoxy and creative license that so strongly defined the firm's body of work, and would eventually render partners Hugh Gibbs and Donald Gibbs local masters of postwar Modern architecture. This building was also one of the firm's more notable institutional projects and is widely cited in documentary sources as a significant commission in the context of its overall output.

The Psychology Building has been minimally altered. The building retains integrity of location, design, setting, workmanship, feeling, and association. It also retains integrity of materials, though this aspect of integrity has been compromised with the replacement of the original glass curtain wall system. The building retains sufficient integrity for listing in the National Register and California Register.

The period of significance for the Psychology Building has been identified as 1970, corresponding to the building's original date of construction.

The following have been identified as character-defining features of the Psychology Building:

- Asymmetrical massing
- Irregular plan, oriented around a central courtyard
- Flat roof
- Exterior walls clad in Norman brick
- Full-height vertical stair shafts comprising vertically incised concrete panels
- Indented concrete columns (within courtyard)
- Exterior corridors with glass-and-metal handrails
- Glazed and solid metal entrance doors
- Tall, narrow fixed metal windows
- Glass curtain walls (within courtyard)
- Monolithic brick walls with minimal fenestration (outer building perimeter)
- Hued pavers (within courtyard)
- Sunken circular planters (within courtyard)
- Lack of surface ornament or decorative details

No interior character-defining features were identified as primary interior spaces are utilitarian and do not contribute to the architectural significance of the building.

Theatre Arts Building (1972)

The TA Building was found to be individually eligible for listing in the National Register and California Register under Criterion C/3, in the area of Architecture and Design.

The building satisfies this criterion because it embodies the distinctive characteristics of the New Formalist style as applied to an institutional setting, and specifically embodies characteristics of the style that were developed specifically for the CSULB campus. Character-defining features of the New Formalist style that are expressed in the design of the building include its monumental scale and massing, its prevailing sense of symmetry and balance, a flat roof and wide eave, and an abstracted colonnade comprising full-height columnar supports. These features provide the building with a level of articulation that renders it a notable example of New Formalist architecture as applied to an institutional building, and for this reason it is valuable to a study of this derivative of the postwar Modern architectural movement. Its design demonstrates how the essential tenets of Classical architecture were deftly blended with those associated with Modernism.

The building also satisfies Criterion C/3 as a notable work of master architect Frank Homolka and Associates. Its design exemplifies the firm's – and specifically Homolka's – ability to design buildings that amalgamate the formal tenets of Classical design and the structural expression and rationality associated with the Modern movement. This building was also one of the firm's more notable institutional projects and is widely cited as a significant commission in the context of its overall output.

The TA Building appears to be unaltered. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association, and thus retains sufficient integrity for listing in the National Register and California Register.

The period of significance for the TA Building has been identified as 1972, corresponding to the building's original date of construction.

The following have been identified as character-defining features of the TA Building:

- Symmetrical façades (west, north, south)
- Flat roof with wide eaves
- Slender concrete column supports that form an abstracted colonnade
- Exterior walls clad in Norman brick and painted concrete
- Extensive glazing comprising fixed, floor-to-ceiling metal windows and glazed doors (west façade)
- Double-height lobby with quarry tile floors, mezzanine, and metal handrails (interior)

University Student Union (1972)

The USU was found to be individually eligible for listing in the National Register and California Register under Criterion C/3, in the area of Architecture and Design.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically embodies characteristics of the style that were developed specifically for the CSULB campus. Character-defining features of the Mid-Century

Modern style that are expressed in the design of the building include exposed post-and-beam construction, simple geometric forms, a flat roof with wide eaves, a simple material palette comprising Norman brick and painted concrete, the juxtaposition of solid walls against ribbons of glass, a dearth of ornament, and an integral relationship between building and site. Like the MHB anchors the Upper Campus to the south, this building anchors the Upper Campus to the north and stands as a similarly bold architectural statement. It exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and for this reason it is valuable to a study of the postwar Modern architectural movement.

The building also satisfies Criterion C/3 as a notable work of master architect Killingsworth-Brady and Associates. It is a successful example of how the firm – and particularly principal Edward Killingsworth – took the fundamental elements of its post-and-beam aesthetic, transposed them to a larger scale and an institutional context, and designed buildings that were as aesthetically pleasing as they were functional. This building is significant as one of the firm's more notable institutional projects and is widely cited in documentary sources as a significant commission in the context of its overall output.

Though a large addition was appended to the west elevation of the USU in 1998, it was designed by original architect Edward Killingsworth and carries forward the architectural vocabulary of the original volume of the building. Thus, the 1998 addition is important in its own right and complements – rather than detracts from – the original building and its architectural significance. For this reason, the building, while altered, retains integrity of location, design, setting, materials, workmanship, feeling, and association, and retains sufficient integrity for listing in the National Register and California Register.

The period of significance for the USU has been identified as 1972-1998. This encompasses the building's original date of construction, and also accounts for the 1998 addition that was designed in the same architectural style by original architect Edward Killingsworth.

The following have been identified as character-defining features of the USU:

- Irregular plan
- Level changes that correspond to the topography of the site
- Exposed concrete structural system comprising painted concrete posts and beams
- Flat roof with wide eaves
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal doors
- Fixed metal windows
- Courtyard with quarry tile flooring and concrete planter beds (center of building)
- Cantilevered stairs with quarry tile treads and metal handrails (within courtyard)
- Entrance vestibule with quarry tile floors (interior, first floor)
- Double-height lobby with quarry tile floors and exposed concrete beam ceilings (interior, second floor)

Historic Districts

Two historic districts were identified in the survey as eligible for listing in the National Register and California Register: the Hillside College Historic District and the Upper Campus Historic District.

Subsequent to the completion of the survey, a development project ("Housing Expansion Phase 1 - Housing Administration and Commons Building Project") took place within one of the identified historic districts (Hillside College Historic District). The project involved the removal of one contributing building (Hillside Office-Commons/Building G) and construction of two new buildings in its place. As part of the environmental review process for the project, ARG prepared a Historic Resource Assessment Report to analyze the project's impacts to the Hillside College Historic District. That report concluded that the project constituted a substantial adverse impact to the historic district that could not be mitigated to a level of less-than-significant, and diminished the integrity of the district to the extent that it would no longer be eligible for listing in the National Register and/or California Register. This determination was submitted to the OHP, which concurred with the finding that the district would no longer be eligible for listing. The district was accordingly removed from the Master List of state-owned historical resources. The project was completed in November 2021.[57] As it is no longer an eligible resource, the Hillside College Historic District is not assessed in this report, and is no longer considered to be a historical resource for purposes of CEQA.

One eligible historic district (Upper Campus Historic District) remains on campus. The district as it was identified in the survey included 28 buildings including 24 contributors and four-non contributors, as well as various site and landscape features.[58] Subsequent to the completion of the survey, one non-contributing building (Art Annex/ANNEX) – a modular building that did not relate to the significance of the district – was demolished. The removal of this building was noted in ARG's supplemental site visit and confirmed by CSULB. Therefore, the Upper Campus Historic District currently comprises 27 buildings including 24 contributors and three non-contributors, as well as various site and landscape features. This report includes an assessment of the Upper Campus Historic District against present-day conditions.

Below is a summary of the district and its contributing/non-contributing buildings, followed by a summary statement of significance.

DISTRICT NAME	PERIOD OF SIGNIFICANCE	NO. OF CONTRIBUTING RESOURCES	ELIGIBLE FOR NRHP	ELIGIBLE FOR CRHR
Upper Campus Historic District	1953-1972	27 buildings (24 contributors); site and landscape features	X	X

BUILDING NAME	YEAR BUILT	ARCHITECT	STATUS
Academic Services (AS)	1955	Hugh Gibbs	Contributor

[57] California State University Long Beach, "CSULB's New Hillside Gateway Building Raises the Bar for Sustainability," press release, Nov. 19, 2021, accessed Jun. 2022.
[58] "California State University, Long Beach, Campus-Wide Historic Resources Survey Report," prepared by Architectural Resources Group, Dec. 6, 2019, 35-43.

BUILDING NAME	YEAR BUILT	ARCHITECT	STATUS
Bookstore (BKS)	1955	Hugh Gibbs	Contributor
College of Liberal Arts Administration (CLA)	1954	Hugh Gibbs	Contributor
Education 2 (ED2)	1961	California State Division of Architecture	Contributor
Ellis Education Building (EED)	1957	California State Division of Architecture	Contributor
Faculty Office 2 (FO2)	1957	California State Division of Architecture	Contributor
Faculty Office 3 (FO3)	1959	California State Division of Architecture	Contributor
Fine Arts 1 (FA1)	1954	Hugh Gibbs	Contributor
Fine Arts 2 (FA2)	1954	Hugh Gibbs	Contributor
Fine Arts 3 (FA3)	1958	California State Division of Architecture	Contributor
Fine Arts 4 (FA4)	1962	California State Division of Architecture	Contributor
Language Arts Building (LAB)	1967	California State Division of Architecture	Contributor
Lecture Hall 150-151 (LH)	1955	California State Division of Architecture	Contributor
Liberal Arts 1 (LA1)	1962	California State Division of Architecture	Contributor
Liberal Arts 2 (LA2)	1954	Hugh Gibbs	Non-contributor
Liberal Arts 3 (LA3)	1954	Hugh Gibbs	Non-contributor
Liberal Arts 4 (LA4)	1955	Hugh Gibbs	Non-contributor
Liberal Arts 5 (LA5)	1962	California State Division of Architecture	Contributor
Library (LIB)	1971	Joint Venture Architects	Contributor
*McIntosh Humanities Building (MHB)	1967	California State Division of Architecture	Contributor
Multi-Media Center (MMC)	1971	Joint Venture Architects	Contributor
*Psychology Building (PSY)	1970	Gibbs and Gibbs	Contributor
*Theatre Arts (TA)	1972	Frank Homolka and Associates	Contributor
University Dining Plaza (UDP)	1957	California State Division of Architecture	Contributor

BUILDING NAME	YEAR BUILT	ARCHITECT	STATUS
*University Student Union (USU)	1972	Killingsworth-Brady and Associates	Contributor
University Telecommunications Center (UTC)	1958	California State Division of Architecture	Contributor
University Theatre (UT)	1955	Hugh Gibbs	Contributor

**Buildings marked with an asterisk contribute to the Upper Campus Historic District and are also individually eligible for listing.*

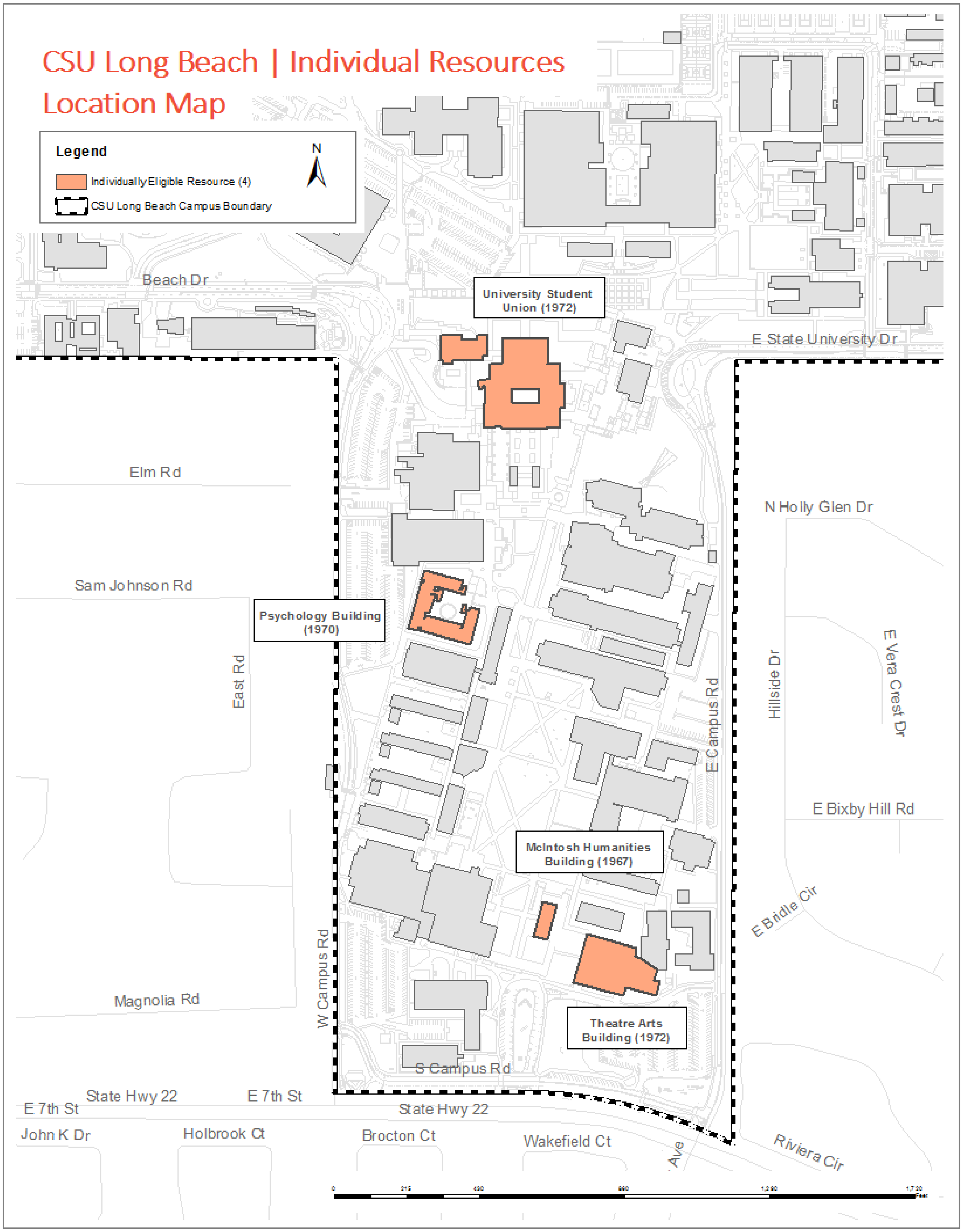
The Upper Campus Historic District was found to be eligible for listing in the National Register and California Register under Criteria A/1 and C/3 in the areas of Institutional Development, Campus Planning, and Architecture and Design.

The district, in its entirety, conveys significant patterns of institutional development related to the founding and early development of CSULB. Together its buildings, landscaping, and site features tell the story of how in its nascence, the institution developed from a small commuter school into a regional hub of higher education. The district is a physical expression of the myriad institutional factors and architectural and planning paradigms that came together to shape the early growth of the campus. As such, the district embodies broad patterns of institutional history under Criterion A/1.

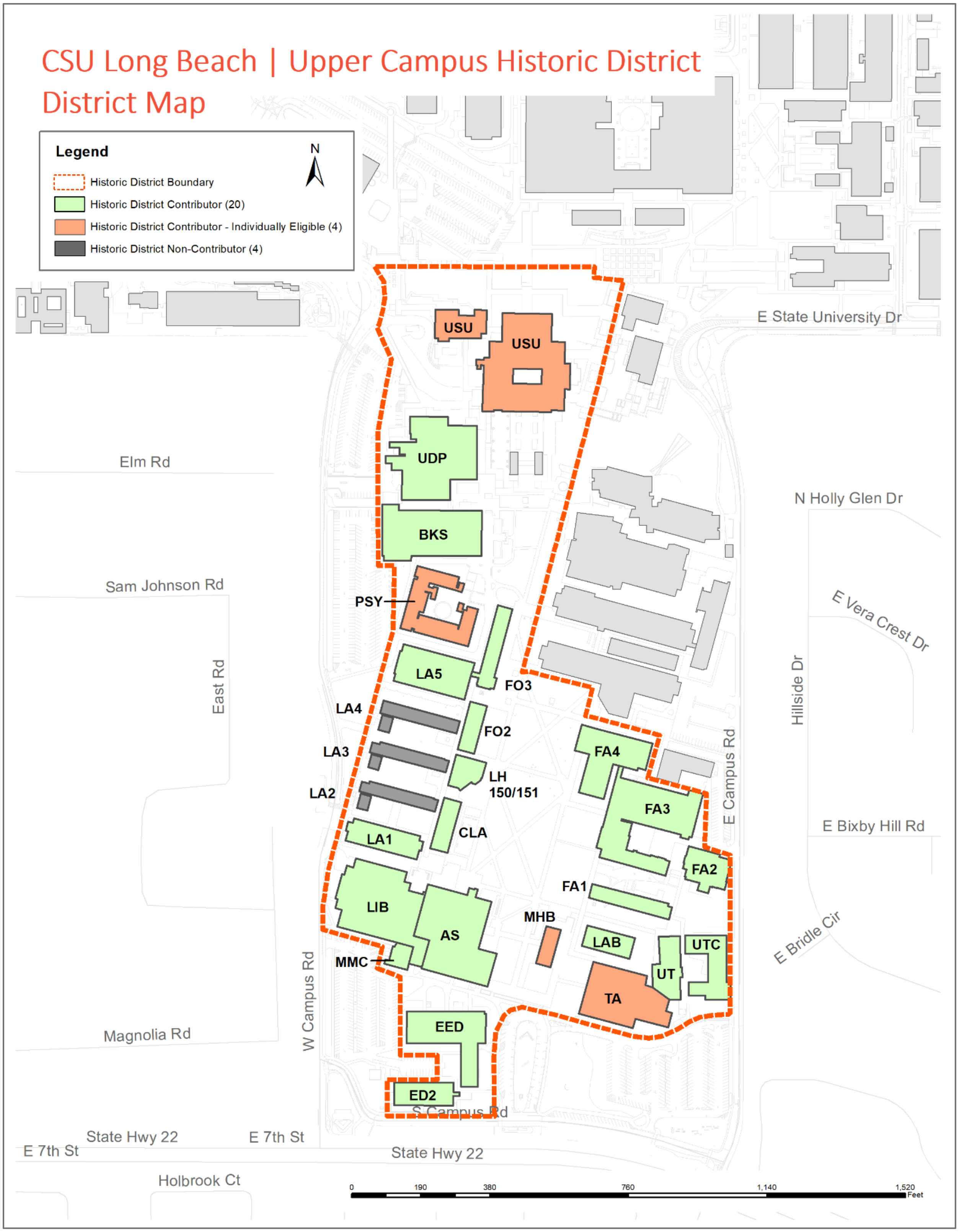
The district also satisfies NRHP Criterion C/CRHR Criterion 3. The district, in its entirety, embodies the distinctive characteristics of a historic type and period as an intact concentration of buildings and site planning/landscape features that together convey the architectural principles that were rooted in the Mid-Century Modern movement and so strongly influenced the character of the CSULB campus early in its formative period of growth and development.

The district also satisfies NHRP Criterion C/CRHR Criterion 3 as a successful example of the collaboration between multiple master architects/firms: Gibbs and Gibbs and Killingsworth-Brady and Associates (consulting architects), Edward Lovell (landscape architect), and the various project architects who worked under their direction. The architectural and landscape features that define the district represent a meeting of the minds between these practitioners, showing how they demonstrated mastery in their respective areas of practice to create an environment that met the objectives of the campus master plan and was firmly grounded in the tenets of Mid-Century Modern architecture and planning.

The district currently comprises 27 buildings, of which 24 (89%) are contributing. It also includes corresponding site/landscape features and public art installations, which are related features of the district and contribute to its significance. The period of significance of the district is 1953-1972, accounting for the period during which its contributing features were planned, designed, and built.



Summary map of individually eligible resources (generated by ARG)



Summary map of the Upper Campus Historic District (generated by ARG)

6. Project Impacts

6.1. Summary of Potential Impacts

The Master Plan Update will serve as the principal planning document that will guide CSULB's physical campus development over the next decade and beyond. It establishes priority development projects to be implemented between the Project's adoption and its horizon year of 2035. The Master Plan Update is structured around four implementation strategies: renovation of existing buildings (renovation), demolition and replacement of existing buildings (replacement), construction of new buildings (new construction), and leaving buildings in their existing location and configuration (no change).

Three of these strategies (renovation, replacement, and new construction) have the potential to impact historical resources in the following ways:

- **Renovation** projects may result in alterations to historical resources.
- **Replacement** projects may result in the demolition of historical resources that have been identified as outdated and subsequent construction of new buildings and facilities in their place.
- **New construction** projects may result in construction of new buildings and facilities adjacent to historical resources.

The fourth strategy – no change – would not result in impacts to historical resources as in this scenario, historical resources would remain intact and in situ.

The sections below include an analysis of potential project impacts. First is a general discussion of potential impacts related to renovation, replacement, and new construction projects that may occur upon implementation of the Master Plan Update. This section is intended to provide broad, programmatic guidance applicable to all projects that may be undertaken to achieve the objectives of the Master Plan Update. Next is an analysis of potential impacts resulting from specific projects identified in the Master Plan Update, followed by an analysis of cumulative impacts to historical resources that may occur upon implementation of the Master Plan Update.

6.2. Programmatic Guidance for Project Impacts

Implementation of the Master Plan Update has the potential to impact historical resources. Specific facility projects involving renovation, replacement, and new construction that are proposed in the Master Plan Update are analyzed below, in Section 6.3. In addition to these specific projects, it is possible that additional facility projects may be completed under the auspices of the Master Plan Update in order to achieve its stated objectives. This section provides broad guidance that is applicable to all projects that may occur under the Master Plan Update and have the potential to impact historical resources. The general guidance provided herein is subsequently applied to the analysis of specific facility projects in Section 6.3. Separate guidance is provided for renovation projects and replacement/new construction projects.

Renovation Projects

Overview

The Master Plan Update proposes renovations to campus buildings that have been identified as outdated. Renovation projects have the potential to impact historical resources. The renovation projects that are completed to achieve the objectives of the Master Plan Update may include, but are not necessarily limited to, the following:

- Retrofitting teaching and research spaces to meet contemporary standards
- Infrastructure systems upgrades
- Americans With Disabilities Act (ADA)-related improvements
- Energy efficiency improvements (including window replacements)
- Change in use of space (e.g., classroom converted to group learning area)
- Repurposing of an existing building to accommodate a new use
- Additions to an existing building
- Removal of additions or modifications that occurred outside of the building's period of significance
- Structural or seismic retrofitting
- Improvements to landscape or hardscape features that are considered to be character-defining features of an eligible or designated historical building

Renovation projects such as these have the potential to impact historical resources as follows:

- Character-defining features and spaces that characterize a resource may be altered or removed.
- Extensive alterations to a resource may be needed to accommodate a change of use.
- New additions to a resource may be incompatible with its bulk, scale, massing, height, or style.

This is applicable to the four individually eligible resources as well as to the historic district.

If the extent of alterations is such that a historical resource is no longer eligible for inclusion in the National Register and/or California Register, then the project would "materially impair" the historical resource per 15064.5(b)(2) of the CEQA Guidelines, and the following mitigation is recommended.

Mitigation Program for Renovation: Individually Eligible Resources

When a renovation project involving an individually eligible resource is proposed, the University shall apply Mitigation Measure 1 (Secretary Standards Compliance) and engage a qualified architectural historian meeting the Secretary of the Interior's Professional Qualification Standards to assess the project.[59] The architectural historian shall conduct an assessment of the proposed scope of renovation work against the *Secretary of the Interior's Standards for Rehabilitation* (the Standards). The findings of

[59] For more information about the Secretary of the Interior's Professional Qualification Standards, refer to: https://www.doi.gov/pam/asset-management/historic-preservation/pqs.

the architectural historian shall be presented in a memorandum or equivalent level of documentation analyzing how the renovation project meets or does not meet the Standards.

If the architectural historian concludes that the project meets the Standards, then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

However, if the architectural historian concludes that the project does not meet the Standards, then the University, in consultation with the architectural historian shall evaluate design alternatives to determine whether potential impacts can be lessened by redesigning the project to eliminate its "objectionable or damaging aspects" (e.g., retaining instead of removing a character-defining feature, or reducing the size/massing of a proposed addition).[60]

If compliance with the Standards is not feasible, then the following mitigation measures shall apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)

Review by the architectural historian will be necessary to determine if the implementation of Mitigation Measures 3 and 4 will lessen project impacts to a level of less-than-significant.

<u>Mitigation Program for Renovation: Historic District</u>

In instances where the impacts of a project are being considered in the context of a historic district, the "historical resource" evaluated under CEQA is the district in its entirety – and not any one of its contributing buildings or other components. Different buildings contribute to a district in different ways, and some may carry more weight in conveying the significance of the district than others.

Given the holistic manner in which districts are evaluated, the University shall implement Mitigation Measure 2 (Adaptive Mitigation Management Program, or AMMP) upon adoption of the Master Plan Update. The AMMP would result in the production of a detailed preservation and maintenance plan for the Upper Campus Historic District, which would help inform renovation (and other) projects that take place within the district. The AMMP would be based on, and incorporate, the Standards, and would thus accomplish the same goals of Mitigation Measure 1 (Secretary Standard's Compliance) for projects proposed for within the district.

The same general principles that apply to mitigating impacts to individual resources also apply to mitigating potential impacts to the historic district. When a renovation project involving a district contributor is proposed, the University shall engage a qualified architectural historian to evaluate the project and determine whether it conforms to the AMMP, pursuant to Mitigation Measure 2. The findings of the architectural historian shall be presented in a memorandum or equivalent level of documentation

[60] For more information about the Secretary of the Interior's Professional Qualification Standards, refer to: https://www.doi.gov/pam/asset-management/historic-preservation/pqs.

analyzing how the project either does or does not conform to the AMMP. Like Mitigation Measure 1, Mitigation Measure 2 shall examine whether impacts can be lessened by redesigning the project to eliminate its "objectionable or damaging aspects" (e.g., retaining instead of removing a character-defining feature, or reducing the size/massing of a proposed addition). However, Mitigation Measure 2 shall relate to the district as a whole, rather than to an individual building or site/landscape feature within its boundaries.

If the proposed scope of work is found to conform with Mitigation Measure 2 (and therefore with the AMMP and the Standards), then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

If the proposed scope of work is found to not conform with Mitigation Measure 2, then the following mitigation measures shall apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)

Review by the architectural historian will be necessary to determine if implementation of Mitigation Measures 3 and 4 will lessen impacts to a level of less-than-significant.

In most instances, renovation projects to district non-contributors would not result in impacts to the district so long as the project does not adversely affect the configuration, architectural character, or other spatial and visual qualities that convey the significance of the district as they are defined in the AMMP.

Replacement and New Construction Projects

Overview

Multiple sites are identified in the Master Plan Update for replacement and new construction projects, some of which are located within the boundaries of the historic district. Because all of the individually eligible resources are also district contributors, these replacement and new construction projects would also be located in the vicinity of the individually eligible resources.[61]

Replacement projects that are completed to achieve the objectives of the Master Plan Update may include, but are not necessarily limited to, the following:

- A district contributor is demolished or removed.
- A district non-contributor is demolished or removed.

[61] Here and throughout this report, "vicinity" shall be understood as adjacent to, or within direct view of, an individually eligible historical resource, as determined by an architectural historian.

- An associated site or landscape feature – such as a designed landscape, hardscape element, or public art installation – within a historic district is demolished or removed.
- A new building is constructed within the historic district or in the vicinity of a historical resource.

Replacement projects have the potential to impact historical resources as follows:[62]

- The removal of one or more district contributors may compromise the integrity of the district and its ability to remain eligible for listing in the National Register and/or California Register.

New construction is proposed to replace the demolished buildings. Potential impacts to historical resources resulting from new construction may include, but are not necessarily limited to, the following:

- New construction in the vicinity of an individually eligible resource may be incompatible with the historical resource in terms of bulk, scale, massing, height, and/or style.
- New construction within a historic district may be incompatible with the district's prevailing scale, shape, form, material composition, and general aesthetic qualities. New construction may interrupt the district's important spatial relationships, dwarf district contributors, compromise important viewsheds, or detract from the district's characteristic aesthetic and spatial qualities.

If the extent of demolition or new construction is such that a historical resource is no longer eligible for inclusion in the National Register and/or California Register, then the project would "materially impair" the resource per 15064.5(b)(2) of the CEQA Guidelines, and the following mitigation is recommended.

<u>Mitigation Program for Replacement/New Construction: Individually Eligible Resources</u>

Demolition is generally considered to be an unavoidable adverse impact that cannot be mitigated to a level of less-than-significant. If an individually eligible resource is demolished to achieve the goals of the Master Plan Update, then that action would result in a significant unavoidable impact. However, as noted, no individually eligible resources are identified as sites for demolition in the Master Plan Update.

If a new construction project is proposed for a site in the vicinity of an individually eligible historical resource, and the architectural historian determines that the new construction is incompatible with the setting, scale, and aesthetic qualities of the adjacent historical resource, then the University shall apply Mitigation Measure 1 (Secretary Standards Compliance) and engage a qualified architectural historian meeting the Secretary of the Interior's Professional Qualification Standards to assess the project, focusing on the application of Standards No. 9 and 10, both of which relate to adjacent new construction.

If the architectural historian concludes that the project meets the Standards, then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

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[62] As noted, none of the individually eligible resources are identified for replacement as part of the Master Plan Update.

If the architectural historian concludes that the project does not meet the Standards, then the University, in consultation with the architectural historian, shall explore if impacts can be lessened by redesigning the project to eliminate its "objectionable or damaging aspects" (e.g., retaining instead of removing a character-defining feature, or reducing the size/massing of a proposed addition).[63]

Mitigation Program for Replacement/New Construction: Historic District

In instances where the impacts of a project are being considered in the context of a historic district, the historical resource evaluated under CEQA is the district as a whole, and not any one of its contributing buildings or other components. As noted, different buildings and features contribute to a district in different ways, and some may carry more weight in conveying the significance of the district than others.

Given the holistic manner in which impacts to districts are evaluated, ARG recommends that the University implement Mitigation Measure 2 (Adaptive Mitigation Management Program, or AMMP) upon adoption of the Master Plan Update. The AMMP would result in the production of a detailed preservation and maintenance plan for the Upper Campus Historic District, which would help guide replacement and new construction projects within the district in such a way that project impacts can be lessened to a level of less-than-significant. The AMMP would be based on, and incorporate, the Standards and would thus accomplish the same goals of Mitigation Measure 1 (Secretary Standard's Compliance) for projects involving the district.

If the architectural historian concludes that the project conforms with Mitigation Measure 2 (and therefore with the AMMP and the Standards), then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

If the architectural historian concludes that the proposed scope of work does not conform to the AMMP (and thus does not conform to the Standards as the relate to the district), then there is the potential for significant and unavoidable impacts, and the following mitigation measures will apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)
- Mitigation Measure 5 (Salvage)

6.3. Specific Project Impacts

This section includes an analysis of potential impacts to historical resources that are associated with specific near-term and mid-term projects identified in the Master Plan Update. A separate discussion is included for potential impacts to individually eligible resources and potential impacts to the historic district.

[63] As noted, none of the individually eligible resources are identified for replacement as part of the Master Plan Update.

Potential Impacts to Individually Eligible Resources

Renovation Projects

The Master Plan Update identifies near-term and mid-term renovation projects for two individually eligible historical resources:

- Theatre Arts (TA) – built 1972
- University Student Union (USU) – built 1972

A summary description of each renovation project is included below:

- **Theatre Arts:** the Master Plan Update proposes a renovation of the TA Building. The proposed scope of work involves an interior renovation totaling 60,000 gross square feet (GSF). The scope of proposed renovations is limited to the building interior.

- **University Student Union Renovation/Addition and Cafeteria Replacement:** the Master Plan Update proposes to renovate 160,000 GSF of the existing USU building and provide a 50,000-GSF addition a renovation and expansion of the USU. The addition would require demolition of the University Dining Plaza. The project would modernize and expand the building to accommodate current student needs, as well as provide expanded campus food services.

Depending on their scopes of work, these projects have the potential to impact historical resources. Renovations to TA and USU could result in alterations to these resources through the removal or modification of either interior or exterior character-defining features to the extent that one or both of these resources are no longer eligible for listing in the National Register and/or California Register. This would constitute a significant impact under CEQA. Moreover, additions to USU could compromise the integrity of this resource by introducing new massing and materials that are incompatible with historic fabric. This, too, could compromise the integrity of USU to the extent that it is no longer eligible for listing in the National Register and/or California Register.

The above guidance related to renovation projects in Section 6.2 shall be applied to these renovation projects. For the two above-described renovation projects that have the potential to result in impacts (TA and USU), the University shall apply Mitigation Measure 1 (Secretary Standards Compliance) and engage a qualified architectural historian to assess each project. The architectural historian shall conduct an analysis of the proposed scope of work against the Standards. The findings of the architectural historian shall be presented in a memorandum or equivalent level of documentation analyzing how the renovation project meets or does not meet the Standards.

If the architectural historian concludes that the project meets the Standards, then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

If the architectural historian concludes that the project does not meet the Standards, then the University, in consultation with the architectural historian, shall evaluate design alternatives to determine whether potential impacts can be lessened by redesigning the individual development project to eliminate its "objectionable or damaging aspects" (e.g., retaining instead of removing a character-defining feature, or reducing the size/massing of a proposed addition).[64]

If the architectural historian concludes that compliance with the Standards is not feasible and the proposed scope of work does not meet the Standards, then there is the potential for significant and unavoidable impacts, and the following mitigation measures will apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)

Review by the architectural historian will be necessary to determine if implementation of Mitigation Measures 3 and 4 will lessen impacts to a level of less-than-significant.

Replacement and New Construction Projects

No replacement projects are proposed for an individually eligible resource in the Master Plan Update. All four individually eligible resources (MHB, Psychology Building, TA, and USU) would remain extant upon implementation of the Project.

Of the near-term and mid-term projects identified in the Master Plan Update, there is one new construction project proposed within the vicinity of individually eligible resources:

- **7th St. Community Outreach Facility**: this project would construct a new 100,000-GSF building in the location of the existing Ellis Education (EED) and Education 2 (ED2) buildings. The project is in the vicinity of the MHB, an individually eligible resource.

Depending on the scope of work, this project has the potential to impact historical resources. Specifically, the construction of the 7th St. Community Outreach Facility, which would occupy a site adjacent to MHB, could introduce architectural or other design features that are visually incompatible with the historical resource.

The above guidance related to renovation projects in Section 6.2 shall be applied to these new construction projects. When a new construction project is proposed for a site in the vicinity of an individually eligible historical resource, the University shall apply Mitigation Measure 1 (Secretary Standards Compliance) and engage a qualified architectural historian to assess the project with a focus on Standards No. 9 and 10, which relate to adjacent new construction.

If the architectural historian concludes that the new construction meets the Standards, then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

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[64] As noted, none of the individually eligible resources are identified for replacement as part of the Master Plan Update.

If the architectural historian concludes that the new construction is incompatible with the setting, scale, and aesthetic qualities of the historical resource, then the University shall explore if impacts can be lessened by redesigning the project to eliminate its "objectionable or damaging aspects" (e.g., retaining instead of removing a character-defining feature, or reducing the size/massing of a proposed addition).[65]

If the architectural historian concludes that compliance with the Standards is not feasible and the proposed scope of work does not meet the Standards, then there is the potential for significant and unavoidable impacts, and the following mitigation measures will apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)

Review by the architectural historian will be necessary to determine if implementation of Mitigation Measures 3 and 4 will lessen impacts to a level of less-than-significant.

Potential Impacts to the Historic District

<u>Renovation Projects</u>

The Master Plan Update proposes near-term and mid-term renovation projects for eight contributors to the historic district:

- Fine Arts 1 (FA1) – built 1954
- Fine Arts 2 (FA2) – built 1954
- Fine Arts 4 (FA4) – built 1962
- Lecture Hall 150/151 (LH) – built 1955
- Liberal Arts 5 (LA5) – built 1962
- Theatre Arts (TA) – built 1972
- University Student Union (USU) – built 1972
- University Theatre (UT) – built 1955

A description of each renovation project is included below:[66]

- **Fine Arts 1 and 2 (FA1, FA2) Renovation**: this project would include interior renovations of both buildings totaling 35,000 GSF of the Fine Arts 1 and Fine Arts 2 buildings.

- **Fine Arts 4 (FA4) Renovation:** this project would include a full interior renovation of the 3-story Fine Arts 4 building, totaling 83,000 GSF. The building footprint would remain unchanged.

- **Lecture Hall 150-151 (LH) Renovation:** this project consists of an interior tenant improvement renovation totaling 7,050 GSF.

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[65] As noted, none of the individually eligible resources are identified for replacement as part of the Master Plan Update.
[66] Note that the renovation of FA1 and FA2 is addressed here as a single renovation project involving both buildings.

- **Liberal Arts 5 (LA5) Renovation**: the project would include a full building renovation of 63,000 GSF, including interior and exterior, and would replace windows and update the exterior to be ADA compliant.

- **Theatre Arts (TA) Renovation**: this project would include an interior renovation of the building totaling 60,000 GSF.

- **University Student Union (USU) Renovation/Addition and Cafeteria Replacement**: this project would renovate 160,000 GSF of the existing USU building and provide a 50,000-GSF addition. The project would modernize and expand the building to accommodate current student needs, as well as provide expanded campus food services. The USU addition would require demolition of UDP, a district contributor.

- **University Theatre (UT) Renovation:** this project would include an interior renovation of the building totaling 20,000 GSF.

Most of these renovation projects are limited to interior spaces and would not affect building exteriors. Interior renovation projects would not alter or remove character-defining features of the district, which are generally limited to building exteriors, site and landscape features, circulation patterns, and spatial relationships among the district's contributing elements. Specifically, interior renovations to FA1/FA2, FA4, LH, TA, and UT would not result in impacts to the district, provided that the scope of work is limited to building interiors and would not modify the form or appearance of exterior façades. No impacts to the district are anticipated if the above-listed renovation projects are completed as planned.

However, exterior renovations are proposed for two district contributions: LA5 and USU.[67] As discussed in Section 6.2, exterior renovations to district contributors could result in the removal or modification of character-defining features of the district, depending on the scopes of work and the importance of the building(s) in conveying the significance of the district. Moreover, the construction of an addition to USU could result in the removal or alteration of character-defining features that are important to the district, and could also result in changes to the bulk, massing, form, and spatial relationships that define these buildings and their relationship to the district.

The proposed addition to USU would require the demolition of the University Dining Plaza (UDP), which is a contributor to the district. The demolition of UDP could potentially result in material impairment of the district by compromising the visual continuity that currently exists between USU, which anchors the north end of the district, and the rest of the district, most of which is located to the south of UDP.

The recommended mitigation outlined in Section 6.2 shall apply to the renovation projects at LA5 and USU, as these renovation projects have the potential to impact the historic district. For each project, the University shall apply Mitigation Measure 2 (Adaptive Mitigation Management Program) and engage a qualified architectural historian evaluate the proposed scope of work against the AMMP to assess whether the renovation project is compatible with the historic character of the district as defined in the AMMP, and if it will have an impact on the historic district as a whole. The findings of the architectural

[67] As discussed in previous sections, USU is also an individually eligible resource.

historian shall be presented in a memorandum or equivalent level of documentation analyzing how the project either complies with or does not comply with the AMMP.

If the architectural historian concludes that the new construction conforms to the AMMP (and therefore conforms to the Standards as they relate to the district) then the project is presumed to not have an impact on historical resources. During implementation of each project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

If the architectural historian concludes that the proposed scope of work does not conform to the AMMP (and therefore does not conform to the Standards as the relate to the district), then there is the potential for significant and unavoidable impacts, and the following mitigation measures will apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)
- Mitigation Measure 5 (Salvage) – this mitigation measure is applicable if UDP is demolished to accommodate an addition to USU

Review by the architectural historian will be necessary to determine if implementation of Mitigation Measures 3, 4, and 5 will lessen impacts to a level of less-than-significant.

<u>Replacement and New Construction Projects</u>

The Master Plan Update identifies two near-term and mid-term replacement projects within the boundaries of the historic district:

- **7th St. Community Outreach Facility**: this project would construct a new 100,000-GSF building in the location of the existing Ellis Education (EED) and Education 2 (ED2) buildings. The project would require the demolition of EED and ED2, both of which are district contributors.

- **College of the Arts Replacement Building:** this project would construct a new 3- to 4-story building at the site of the existing Fine Arts 3 (FA3) building. This project requires the demolition of FA3. Additionally, the project would construct a 3-story addition, with a bridge connecting to the proposed replacement building. The proposed replacement building would house Fine Arts programs and the relocation of the Design Department. The building would be positioned to define the east side of the quad, with an internal courtyard for outdoor learning, study, gallery space, and gathering. The new facility could also contain shared studios, collaboration spaces, and innovation spaces supporting interdisciplinary initiatives within the College of the Arts.

Construction of these replacement projects would require the removal of three district contributors:

- Education 2 (ED2) – built 1961
- Ellis Education Building (EED) – built 1957
- Fine Arts 3 (FA3) – built 1958

Demolition of a historical resource is typically considered to be an unavoidable impact that cannot be mitigated to a level of less-than-significant. However, when applied to a historic district, this principle is applied to the district in its entirety, rather to an individual building or specific feature within its boundaries. It is possible for limited demolition to occur within a district without adversely affecting the overall integrity of the district, provided that the district's character and significance remain unimpaired.

There is no prescribed threshold of contributing elements needed to constitute a historic district; eligibility is a holistic assessment based on whether a district retains enough of its historic character and integrity to convey its significance. One measure of impact is to calculate the percentage of contributors to a district following implementation of a project. In accordance with best professional practices, a district should retain, at minimum, 60 percent of its contributors to be eligible for the California Register.

As noted, there are currently 27 buildings within the district, of which 24 (89%) are contributors. If all three of the above-listed district contributors (ED2, EED, and FA3) are demolished, and the two replacement buildings were constructed in their place, then the district would have a total of 26 buildings and 21 contributors, or 80% contributing buildings. This exceeds the professional standard of 60%. When this metric is applied to the district, the demolition of all five contributors would not, and in of itself, result in an impact to the district.

However, also as noted, the eligibility of a district is a holistic judgment. Another way to measure impacts to a district is to examine the breadth of the buildings, site and landscape features, and other elements that remain within a district following implementation of a project. Different buildings contribute to a district in different ways, and some may weigh more heavily in conveying the significance of a district than others. For instance, site and landscape features often also contribute to a district's cohesion by reinforcing the visual association between buildings and defining a district's sense of place.

For the replacement projects involving ED2, EED, and FA3, the University shall apply Mitigation Measure 2 (Adaptive Mitigation Management Program) and engage a qualified architectural historian to evaluate the project against the AMMP to determine whether the existing buildings can be adaptively reused, and assess whether the renovation projects will have an impact on the district as a whole. The findings of the architectural historian shall be presented in a memorandum or equivalent level of documentation analyzing how the project complies with or does not comply with the AMMP.

If the architectural historian concludes that the new construction conforms to the AMMP (and thus with the Standards) then the project is presumed to not have an impact on historical resources. During implementation of the project, the University shall apply Mitigation Measure 6 (Project Review During Design and Construction) and engage a qualified architectural historian or historic architect to review milestone drawings and generally be available to the design team, as needed.

If the architectural historian concludes that the proposed scope of work does not conform to the AMMP (and therefore does not conform to the Standards as the relate to the district), then there is the potential for significant and unavoidable impacts, and the following mitigation measures will apply:

- Mitigation Measure 3 (Documentation)
- Mitigation Measure 4 (Interpretation)
- Mitigation Measure 5 (Salvage)

6.4. Cumulative Impacts

Cumulative impacts to historical resources evaluate whether the cumulative impacts of the proposed project, when considered together, substantially diminish the number of historical resources within the same or similar context or property type. Impacts to historical resources tend to be site-specific, In the context of historical resources, cumulative impacts would involve projects at historical resources with the same level or type of designation or evaluation, projects affecting other structures located within the same historic district, or projects involving resources that are significant within the same historic context as other resources that are impacted by the proposed project.

With respect to implementation of the Master Plan Update, cumulative impacts may include, but are not necessarily limited to, the following scenarios:

- Removal of most historical resources associated with a particular architect who was notable on a local, state and/or national level and made important contributions to the campus and its built environment.
- Removal of most historical resources that exemplify a particular architectural style.
- Removal of most historical resources that represent a significant historic context or theme significant to the campus's developmental history.
- Removal of most contributors within the National Register/California Register-eligible Upper Campus Historic District such that the district is no longer able to convey its historic significance.

Whether cumulative impacts to historical resources will result from implementation of the Master Plan Update is dependent on the cumulative result of impacts associated within the specific individual development projects addressed herein, and also depends on whether these impacts can be mitigated to a level of less-than-significant as per the recommended mitigation programs discussed above.

As discussed, there is no demolition of individually eligible historical resources proposed as part of the Master Plan Update. However, near-term and mid-term renovation projects proposed as part of the Master Plan Update have the potential to impact two individually eligible resources (TA and USU). New construction projects also have the potential to impact one individually eligible resource (MHB). If the impacts associated with renovation projects cannot be mitigated to a level of less-than-significant, and at project completion individually eligible resources no longer retain eligibility for listing in the National Register and/or California Register, then there would be cumulative impacts resulting from the project since historical resources that singularly convey architectural significance on the CSULB campus would no longer be eligible. Conversely, if impacts associated with renovation projects for individually eligible resources can be mitigated to a level of less-than-significant and these resources retain eligibility, then there would not be cumulative impacts resulting from the project.

Also as discussed, the Master Plan Update includes modifications to the Upper Campus Historic District. Specifically, it provides for the renovation of eight district contributors (FA1, FA2, FA4, LH, LA5, TA, USU, UT), and for the removal of four district contributors (EED, ED2, FA3, and UDP). The renovation or removal of a single district contributor, or a small number of district contributors, is unlikely to comprise the integrity of the district such that its eligibility for the National Register and/or California Register is compromised. However, when analyzed collectively these projects have the potential to diminish the integrity of the district of a whole such that it is no longer eligible for listing in the National Register and/or California Register. Because the historic district is the sole historical resource on the CSULB campus that conveys significance related to themes involving campus planning and institutional development, removal of the district associated with implementation of the Master Plan Update would constitute a cumulative impact to historical resources on the campus.

7. Mitigation of Project Impacts

7.1. Mitigation Measures

Section 15064.5(b)(4) of the California Code of Regulations states that "a lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures."[68]

The following mitigation measures have been developed to mitigate impacts to historical resources associated with implementation of the Master Plan Update. These mitigation measures are applied to scenarios specific to the Master Plan Update as discussed in Sections 6.2. and 6.3.

- Mitigation Measure 1. Secretary Standards Compliance. For all instances in which a project is undertaken under the auspices of the Master Plan and involves an individually eligible resource, the University shall engage the services of a qualified architectural historian meeting the Secretary of the Interior's Professional Qualification Standards to conduct an assessment of whether the proposed treatment of the historical resource complies with the *Secretary of the Interior's Standards for Rehabilitation* ("the Standards"). If the proposed project is found to not be in compliance with the Standards, then the architectural historian shall provide recommendations for how to modify the project design so as to bring it into compliance. The professional shall prepare a memorandum or equivalent level of documentation conveying the findings of the assessment.

- Mitigation Measure 2. Adaptive Mitigation Management Program. To ensure that historic buildings and other contributing features within the Upper Campus Historic District are appropriately renovated and maintained, and that the impact of new construction within the district is mitigated to a less-than-significant level, the University shall develop an Adaptive Mitigation Management Program (AMMP) for the historic district. This Adaptive Mitigation Management Program shall be produced following adoption of the Master Plan Update. This will act as a rehabilitation and maintenance plan for the district, and will ensure that projects undertaken within the district are compatible with its historic character. The plan shall include:
  - Historic overview and context of the district
  - Identification of contributing buildings and their character-defining features
  - In-depth assessment of the designed landscape within the district, including identification of character-defining site features, hardscape, and softscape[69]
  - Definitions of applicable historic preservation terms
  - Guidelines for building rehabilitation and maintenance
  - Guidelines for compatible new construction
  - Guidelines for landscape preservation and maintenance

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[68] California Code of Regulations, Section 15064.5(b)(4).

[69] Following guidance set forth in the National Park Service's Preservation Brief #36, *Protecting Cultural Landscapes: Planning Treatment and Management of Historic Landscapes* (Charles A. Birnbaum, ASLA, 1994)

- Mitigation Measure 3. Documentation. The University shall have Historic American Building Survey (HABS) Level II documentation or the equivalent completed for the historical resource and its setting. This documentation shall include drawings, photographs, and a historical narrative. Documentation shall be undertaken prior to the commencement of construction. To ensure public access, the University shall submit copies of the documentation to the Special Collections and University Archives at the CSULB Library, and other interested parties to be identified.

  - *Drawings*: Existing historic drawings of the historical resource, if available, shall be photographed with large-format negatives or photographically reproduced on Mylar. In the absence of existing drawings, full-measured existing conditions drawings of the building's floorplans and exterior elevations should be prepared.

  - *Photographs*: Photo-documentation of the historical resource shall be prepared to Historic American Buildings Survey (HABS) standards (or the equivalent) for archival photography. HABS standards require large-format black-and-white photography, with the original negatives having a minimum size of 4"x5". Digital photography, roll film, film packs, and electronic manipulation of images are not acceptable. All film prints, a minimum of 4"x5", must be hand-processed according to the manufacturer's specifications and printed on fiber base single weight paper and dried to a full gloss finish. A minimum of twelve photographs must be taken. Photographs must be identified and labeled using HABS standards.

  - *Historical Narrative*: A professional meeting the Secretary of the Interior's Professional Qualification Standards in Architectural History or History shall compile historical background information relevant to the historical resource and prepare a narrative.

- Mitigation Measure 4. Interpretation. The University shall prepare and implement an interpretative program for the historical resource. The interpretive program shall focus on the resource's architectural and historical significance and shall incorporate all of the following materials/media.
  - On-site display of historic documentation, which may include historic photographs, historic architectural plans and drawings, and other applicable materials that convey the significance of the historical resource. These materials shall be displayed in a visible and accessible location.

  - Online display of historic documentation, including historic photographs, historic architectural plans and drawings, and other applicable materials that convey the significance of the historical resource. These materials shall be published on the CSULB web site and available to the public.

  - Incorporation of commemorative materials and historical information into on-campus orientation and tours for educational purposes.

- Mitigation Measure 5. Salvage. Under the guidance of a historic architect or architectural historian meeting the Secretary of the Interior's Professional Qualification Standards, and through careful methods of deconstruction to avoid damage and loss, the University shall salvage character-defining features and materials from a historical resource for educational and interpretive purposes on campus, or for reuse in new construction on campus.

- Mitigation Measure 6. Project Review During Design and Construction. For all instances in which a project is undertaken under the auspices of the Master Plan and involves an individually eligible resource, the University shall engage the services of a qualified architectural historian or historic architect meeting the Secretary of the Interior's Professional Qualification Standards to review milestone drawing sets and generally be available to the design team during design and construction. The architectural historian/historic architect shall review Design Development (DD) and Construction Documentation (CD) drawing sets at 50% and 100% completion and provide a brief memo regarding ongoing project compliance with the Standards. Project review during construction shall occur once a month and reporting in memo format. Memos shall be submitted to CSULB Design and Construction Services.

7.2. Mitigation of Cumulative Impacts

Evaluation of cumulative impacts combines all individually eligible resources and historic districts into a single, non-renewable resource base. A cumulative impact would occur if the Master Plan Update affected the same type of resource through one or more cumulative projects (for instance, removal of all campus buildings designed by a single architect who was instrumental to the campus's original design). Generally, compliance with the aforementioned mitigation measures would reduce impacts to the collective resource base, thus reducing cumulative impacts.

7.3. Level of Significance After Mitigation

The mitigation measures listed above, implemented in various combinations and tailored on a case-by-case basis to address specific impacts, may reduce project impacts to a level of less-than-significant. This applies to most projects that are identified in the Master Plan Update.

Impacts that result in the removal of historic district contributors such that less than 60 percent of the total number of contributors remain, and/or to an extent that the district is no longer able to convey the historic contexts and themes underpinning its significance, will continue to be significant after mitigation.

If impacts cannot be mitigated to a level of less-than-significant through implementation of the mitigation program outlined in Section 7.2, additional CEQA review will be required. Projects under the proposed Master Plan Update may qualify for preparation of a lower level of CEQA documentation (e.g., a categorical exemption or an addendum to this EIR) or a tiered analysis based on this EIR, which may include a Supplemental or Subsequent EIR. All feasible mitigation measures that could avoid or reduce impacts must be included in the supplemental CEQA document, regardless of whether or not they lessen impacts to a level of less-than-significant.

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Appendix A. Department of Parks and Recreation (DPR) 523 Series Forms

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B, 3CB

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

P1. Other Identifier: Humanities Office Building (historic name)

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The McIntosh Humanities Building (MHB) anchors the south end of the Upper Campus Historic District. This building is constructed of concrete, has a compact rectangular plan, and sits on a shallow plinth. At nine stories in height, it is considerably taller than most other campus buildings. The building was designed by the State Division of Architecture in the Mid-Century Modern style. It is capped by a flat roof; exterior walls are clad with a Norman brick veneer and painted concrete. Its ground story is set far back behind squared concrete columns, and is transected by a breezeway that doubles as the building's main point of ingress. There are two entrances within this transect, each consisting of a single glazed metal door, sidelights, and transom. Fenestration is confined to the east and west façades, and consists of alternating bands of sliding metal windows and spandrel panels set within a modular grid. All of the windows are shaded by metal *brise soleil*. Along the base of the south, west, and east façades is a shallow reflecting pool, and installed within the reflecting pool is a metal sculpture ("U as a Set," Clare Falkenstein). Other exterior details are limited to signage.

The interior consists primarily of offices. The ground story features a small stair/elevator vestibule with terrazzo floors. The upper stories consist of double-loaded corridors with vinyl composition tile (VCT) floors, acoustic tile ceilings, and solid wood office doors.

The building appears to be unaltered.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) McIntosh Humanities Building/MHB, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1967 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/15/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #
HRI

BUILDING, STRUCTURE AND OBJECT RECORD

*NRHP Status Code 3B, 3CB

B1. Historic Name: Humanities Office Building

B2. Common Name: McIntosh Humanities Building (MHB)

B3. Original Use: Office/Administration B4. Present Use: Office/Administration

***B5. Architectural Style** Mid-Century Modern

***B6. Construction History:** (Construction date, alterations, and date of alterations)
(see Page 3)

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** Reflecting pool (at south); breezeways (east and west facades)

B9a. Architect: California State Division of Architecture b. Builder: Not determined

***B10. Significance: Theme** Architecture and Design **Area** Long Beach

Period of Significance: 1967 **Property Type:** Institutional **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Summary Statement of Significance:

The McIntosh Humanities Building appears to be individually eligible for the National Register and California Register under Criterion C/3. What follows is a discussion of how this determination of eligibility was made.

In addition to being individually eligible, the building is a contributor to the Upper Campus Historic District.

Historic Contexts

Historic Context: Mid-Century Modern Architecture

The McIntosh Humanities Building is designed in an institutional derivative of the Mid-Century Modern style unique to the CSULB campus, which was applied throughout the campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

(continued on page 3)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** *(see Page 5)*

B13. Remarks:

***B14. Evaluator:** Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***Date of Evaluation:** 8/15/2022

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

ARG, 2022
Base map source: ESRI World Topo Map

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

***B6. Construction History** *(continued from page 2)*:

- 1965. Ground broken on subject building (originally called Humanities Office Building)
- 1967. Construction completed
- 1980. Name of building changed from Humanities Office Building to McIntosh Humanities Building

***B10. Significance** *(continued from page 2)*:

Various experiments in Modern architecture that were introduced in the early 20th century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament. International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made." At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans. Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of postwar Modernism. Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism's emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.

(continued on page 4)

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

B10. Significance** *(continued from page 3):**

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture and the architecture of CSULB, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system
- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often expressed as courtyards or plazas

Historic Context: California State Division of Architecture
The McIntosh Humanities Building was designed by the California State Division of Architecture.

The California State Division of Architecture is involved in project design and construction oversight over buildings in California that are publicly funded. This agency was created in 1933 under the auspices of the Field Act, which was passed in the wake of the Long Beach Earthquake (1933) and set mandates for earthquake-resistant construction through design standards and quality control procedures. Its staff of architects are involved in the design and construction of public buildings and facilities across the state, and typically design in architectural idioms that are popular at the time. Most of the early buildings at CSULB – those that were constructed in the 1950s and 1960s – were designed by the State Division, presumably as a way of streamlining design and keeping construction costs low. A majority of the early buildings at CSULB were designed by the State Division of Architecture. By the late 1960s, the university had begun to move away from relying on the State Division of Architecture, and instead recruited private practice architects to design new campus buildings under the direction of the campus's consulting architect, Edward Killingsworth.

Evaluation of Significance
The McIntosh Humanities Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include simple massing and geometric forms, a flat roof, a material palette comprising Norman brick and painted concrete, bands of metal sash windows, and metal *brise soleil* with rectilinear forms. Rising nine stories, this building towers over other development in this area of the CSULB campus. It was intended to be a bold architectural statement with a monumental presence and was intended to serve as the "theme building" for the rest of the campus, showcasing the architectural vocabulary for CSULB that was prescribed by campus consulting architect Edward Killingsworth. This building exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

In addition to being individually eligible, the McIntosh Humanities Building is a contributor to the Upper Campus Historic District.

Evaluation of Integrity
The McIntosh Humanities Building appears to be unaltered. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association, and thus retains sufficient integrity for listing in the National Register and California Register.

Period of Significance
The period of significance for the McIntosh Humanities Building has been identified as 1967, corresponding to the building's original date of construction.

Character-Defining Features
The following have been identified as character-defining features of the McIntosh Humanities Building (MHB):

(continued on page 5)

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

***B10. Significance** *(continued from page 4)*:

- Compact, rectangular plan
- Building set on a shallow plinth with concrete steps
- Recessed ground story with squared concrete column supports
- Open breezeway through the ground story
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Flush-mounted aluminum windows and metal spandrel panels (east, west façades)
- Metal *brise soleil* (east, west façades)
- Lack of surface ornament and decorative details

No interior character-defining features were identified since primary interior spaces are utilitarian and do not contribute to the architectural significance of the building.

***B14. References** *(continued from page 2)*:

Bernstein, David, and Kaye Briegel. "California State University, Long Beach – A Historical Overview: 1949-1989." Essay prepared 1989. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

"Campus-Wide Historic Context for California State University, Long Beach." Prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability. Jun. 2019.

"CSULB Campus Building Starts, Completions, and Dedications." Manuscript. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

CSULB Office of Physical Planning and Sustainability. Archived building plans and construction documents for Hillside College (multiple dates).

Entenza, John. "Announcement: The Case Study House Program." *Arts and Architecture* (Jan. 1945): 37-39.

Gibbs, Hugh. "LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

Green, Terence M. "An Artist in Architecture: Edward Killingsworth of Long Beach is Known Worldwide." *Los Angeles Times.* May 1, 1983.

Killingsworth-Brady-Smith and Associates. "Projected Master Plan for Long Beach State College." Campus master plan. 1963. Accessed Sept. 19 via the CSULB Library Special Collections and University Archives.

"LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

Los Angeles Conservancy. "Killingsworth, Brady and Smith." Accessed Sept. 2019. https://www.laconservancy.org/architects/killingsworth-brady-and-smith

National Register of Historic Places Multiple Property Documentation Form. "The Case Study House Program: 1945-1966." Prepared Dec. 2012, revised Mar. 2013.

Shivers, Natalie W. "Architecture: A New Creative Medium." *LA's Early Moderns: Art/Architecture/ Photography.* Los Angeles: Balcony Press, 2003.

CONTINUATION SHEET

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

Image 2. South elevation, view north (ARG, 2019)

Image 3. Detail of north elevation, view south. Note recessed ground story and shallow plinth (ARG, 2019)

Image 4. North and east elevations, view southwest (ARG, 2019)

Image 5. Breezeway, view east. The McIntosh Humanities Building/ MHB is pictured in the background (ARG, 2019)

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

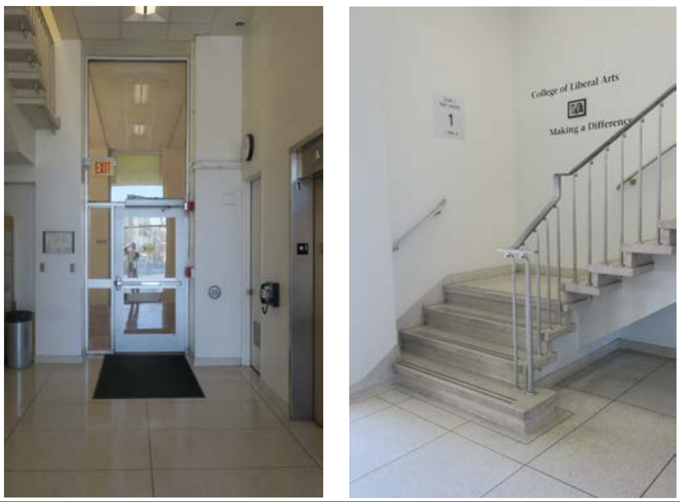


Image 8. McIntosh Humanities Building, view northwest, 1970

Image 9. McIntosh Humanities Building, view northeast, n.d. (CSULB

Image 6. McIntosh Humanities Building under construction, ca. 1966 (CSULB Library Special Collections and University Archives)

Image 7. McIntosh Humanities Building under construction, ca. 1966 (CSULB Library Special Collections and University Archives)

Image 8. McIntosh Humanities Building, view northwest, 1970 (CSULB Library Special Collections and University Archives)

Image 9. McIntosh Humanities Building, view northeast, n.d. (CSULB Library Special Collections and University Archives)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B, 3CB

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Psychology Building (PSY) is located near the center of the Upper Campus Historic District and along the district's western edge. The building is three stories in height and is constructed of concrete. It was designed by architects Hugh and Donald Gibbs (Gibbs and Gibbs) in the Mid-Century Modern style. The building features asymmetrical massing and an irregular plan that is oriented inward around a central courtyard. It is capped by a flat roof and parapet. Most exterior walls are finished in a Norman brick veneer; at the northeast corner of the building, as well as in the courtyard, are three full-height stair shafts composed of deeply incised concrete panels. Façades that face inward toward the courtyard feature glass curtain wall systems. The ground stories of these façades are set back behind indented concrete columns. Each floor is spanned by an exterior corridor, with a handrail system comprising glazed panels and metal caps. Elsewhere on the building, fenestration consists of fixed metal windows set in tall, narrow recessed openings. There are multiple points of ingress, most of which open into the courtyard and consist of single metal doors. Decorative details are limited to signage. The courtyard features hued pavers, integral concrete benches, and a sunken planter with mature eucalyptus trees.

Alterations include the replacement of original pavers within the courtyard, and an in-kind replacement of the glass curtain wall system within the courtyard.

(continued on page 3)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Psychology Building/PSY, view southwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1970 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

BUILDING, STRUCTURE AND OBJECT RECORD

*NRHP Status Code 3B, 3CB

B1. Historic Name: Psychology Building

B2. Common Name: Psychology Building (PSY)

B3. Original Use: Classroom/Office B4. Present Use: Classroom/Office

***B5. Architectural Style** Mid-Century Modern

***B6. Construction History:** (Construction date, alterations, and date of alterations)
(see Page 3)

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** Interior courtyard

B9a. Architect: Gibbs and Gibbs b. Builder: Not determined

***B10. Significance: Theme** Architecture and Design **Area** Long Beach

Period of Significance: 1970 **Property Type:** Institutional **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Summary Statement of Significance:

The Psychology Building appears to be individually eligible for the National Register and California Register under Criterion C/3. What follows is a discussion of how this determination of eligibility was made.

In addition to being individually eligible, the building is a contributor to the Upper Campus Historic District.

Historic Contexts

Historic Context: Mid-Century Modern Architecture

The Psychology Building is designed in an institutional derivative of the Mid-Century Modern style unique to the CSULB campus, which was applied throughout the campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this locally-derived dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

(continued on page 3)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** *(see Page 5)*

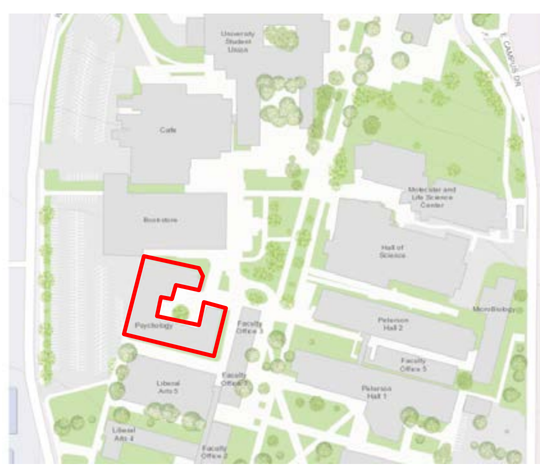
B13. Remarks:

***B14. Evaluator:** Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***Date of Evaluation:** 8/16/2022

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



ARG, 2022
Base map source: ESRI World Topo Map

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***B6. Construction History** *(continued from page 2):*

- 1968. Ground broken on subject building
- 1970. Construction completed
- 2019. Glass curtain wall system replaced (in progress – slated for completion in 2020)

***B10. Significance** *(continued from page 2):*

Various experiments in Modern architecture that were introduced in the early 20th century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament. International Style buildings were characteristically lithe, airy, “gleaming and seemingly machine-made.” At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans. Some architects, captivated by the movement’s emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine’s Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine’s forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region’s foremost exponents of postwar Modernism. Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism’s emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.

(continued on page 4)

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***B10. Significance** *(continued from page 3)*:

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture and the architecture of CSULB, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system
- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often expressed as courtyards or plazas

Historic Context: Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs), Architects

Hugh Gibbs, FAIA (1905-1990) was a prolific Long Beach architect. Gibbs studied architecture at the University of Southern California and opened an independent practice in 1934. Early in his career, he was involved in the design of large residential developments and military complexes; notably, in the late 1940s Gibbs was tapped to develop a master plan and design a Modern ranch-style resort hotel for the community of Apple Valley, roughly 90 miles northeast of Los Angeles. The hotel attracted a high-profile clientele that included Hollywood celebrities and prominent politicians. In the early 1950s, Gibbs was retained by CSULB to develop a master plan for the campus and design its first permanent buildings. In this capacity he laid the foundation for the institution's built form, lending impetus and inspiration to its basic orientation and its distinctively Modern architectural vocabulary.

Gibbs's son, Donald Gibbs, FAIA (1934-present) also studied architecture at the University of Southern California. He joined his father's firm in 1961, and was elevated to partner in 1964. During this time the practice was known as Gibbs and Gibbs. In addition to their contributions to the CSULB campus, Hugh and Donald Gibbs designed a number of buildings in Long Beach including their own offices (1963), the Long Beach Naval Hospital (1973), and the Long Beach Civic Center (1977). The Naval Hospital Project was recognized with a prestigious Award of Merit from the American Institute of Architects (AIA), which lauded its design as "an unusually clean solution to complicated hospital problems[s]." Notable commissions in other cities include the Warner Brothers Office Building in Burbank (1981) – a Late Modern style office building with an exaggerated post-and-beam structural system and staggered volumes that emulates a ziggurat – and the Navy Regional Medical Center in San Diego (1988). The Gibbs and Gibbs partnership remained active until the death of Hugh Gibbs in 1990. Donald Gibbs continued to practice architecture with his son, Kurt, and was retained by CSULB to design additional campus buildings including the Richard and Karen Carpenter Performing Arts Center (1994) and the Walter Pyramid (1994) – whose dramatic form and cobalt blue walls have become iconic symbols of the campus. Donald Gibbs received a Modern Master Award from the Los Angeles Conservancy in 2013. He remains a practicing architect and sculptor in Long Beach. His firm is now run by Kurt Gibbs, AIA and is called Gibbs Architects.

Gibbs and Gibbs are known as prominent local exponents of postwar Modernism, whose legacy is perhaps most enduring in and around their home city of Long Beach. In addition to being prolific, the firm is notable for its unique approach to Modern architecture, which was firmly rooted in the tenets of the postwar Modern movement but often pushed the envelope by incorporating sculptural forms, dynamic volumes, and overtures to past architectural traditions.

Evaluation of Significance

The Psychology Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include simple massing and geometric forms, a flat roof, a simple material palette comprising Norman brick and painted concrete, and a dearth of applied ornament. While the building's design ascribes to the campus architectural vocabulary, it also exhibits a degree of creativity through a strong vertical orientation, complex massing comprising intersecting geometric volumes, tall exterior stair shafts with deep incisions, and glass curtain wall construction. These features provide the building with a level of articulation that renders it a notable example of Mid-Century Modern architecture as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

(continued on page 5)

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***B10. Significance** *(continued from page 4):*

The building also satisfies Criterion C/3 for representing the work of master architects Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs). Its design represents the thoughtful balance between Modern orthodoxy and creative license that so strongly defined the firm's body of work, and would eventually render partners Hugh Gibbs and Donald Gibbs masters of postwar Modern architecture. This building was also one of the firm's more notable institutional projects, and is widely cited in documentary sources as a pivotal commission in the context of its overall output.

In addition to being individually eligible, the Psychology Building is a contributor to the Upper Campus Historic District.

Evaluation of Integrity
The Psychology Building has been minimally altered. The building retains integrity of location, design, setting, workmanship, feeling, and association. It also retains integrity of materials, though this aspect of integrity has been compromised with the replacement of the original glass curtain wall system. The building retains sufficient integrity for listing in the National Register and California Register.

Period of Significance
The period of significance for the Psychology Building has been identified as 1970, corresponding to the building's original date of construction.

Character-Defining Features
The following have been identified as character-defining features of the Psychology Building (PSY):

- Asymmetrical massing
- Irregular plan, oriented around a central courtyard
- Flat roof
- Exterior walls clad in Norman brick
- Full-height vertical stair shafts comprising vertically incised concrete panels
- Indented concrete columns (within courtyard)
- Exterior corridors with glass-and-metal handrails
- Glazed and solid metal entrance doors
- Tall, narrow fixed metal windows
- Glass curtain walls (within courtyard)
- Monolithic brick walls with minimal fenestration (outer building perimeter)
- Hued pavers (within courtyard)
- Sunken circular planters (within courtyard)
- Lack of surface ornament or decorative details

***B12. References** *(continued from page 2):*

Bernstein, David, and Kaye Briegel. "California State University, Long Beach – A Historical Overview: 1949-1989." Essay prepared 1989. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

"Campus-Wide Historic Context for California State University, Long Beach." Prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability. Jun. 2019.

"CSULB Campus Building Starts, Completions, and Dedications." Manuscript. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

CSULB Office of Physical Planning and Sustainability. Archived building plans and construction documents for Hillside College (multiple dates).

Entenza, John. "Announcement: The Case Study House Program." *Arts and Architecture* (Jan. 1945): 37-39.

Gibbs, Hugh. "LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

B12. References** *(continued from page 5):**

Green, Terence M. "An Artist in Architecture: Edward Killingsworth of Long Beach is Known Worldwide." *Los Angeles Times.* May 1, 1983.

Killingsworth-Brady-Smith and Associates. "Projected Master Plan for Long Beach State College." Campus master plan. 1963. Accessed Sept. 19 via the CSULB Library Special Collections and University Archives.

"LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

Los Angeles Conservancy. "Killingsworth, Brady and Smith." Accessed Sept. 2019. https://www.laconservancy.org/architects/killingsworth-brady-and-smith

National Register of Historic Places Multiple Property Documentation Form. "The Case Study House Program: 1945-1966." Prepared Dec. 2012, revised Mar. 2013.

Shivers, Natalie W. "Architecture: A New Creative Medium." *LA's Early Moderns: Art/Architecture/ Photography.* Los Angeles: Balcony Press, 2003.

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #

HRI

CONTINUATION SHEET

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

Image 2. East elevation, view southwest (ARG, 2019)

Image 3. North elevation, view southwest (ARG, 2019)

Image 4. South elevation, view northeast (ARG, 2019)

Image 5. West elevation, view northeast (ARG, 2019)

Image 6. Psychology Building under construction, 1969 (CSULB Library Special Collections and University Archives)

Image 7. Psychology Building, 1970 (CSULB Library Special Collections and University Archives)

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

Image 8. Psychology Building with peach tree in foreground, 1973 (CSULB Library Special Collections and University Archives)

Image 9. Psychology Building, detail of interior courtyard, n.d. (CSULB Library Special Collections and University Archives)

Image 10. Psychology Building, detail of vertical stair shaft, n.d. (CSULB Library Special Collections and University Archives)

Image 11. Psychology Building, detail of interior courtyard and curtain wall, n.d. (CSULB Lib. Sp. Collections and Univ. Archives)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B, 3CB

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

P1. Other Identifier: Studio Theater (historic name)

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Theatre Arts (TA) building occupies a prominent site near the southeast corner of the Upper Campus Historic District. It is a one-story building with double-height interior spaces. It is constructed of concrete and is composed of two volumes: a symmetrical, rectangular volume at the front (west) of the building, and an asymmetrical volume at the rear (east) that is adjoined to the adjacent University Theater (UT) building. The west volume has a monumental presence and is the public face of the building. The building was designed by the architectural firm of Frank Homolka and Associates in the New Formalist style. Most of the building is capped by a flat roof with a wide eave; this eave is supported by slender full-height concrete columns that form an abstracted colonnade along the west, north, and south façades. Exterior walls are finished in a Norman brick veneer; walls on the east face of the building are largely obscured by vines but appear to consist of painted concrete. The west façade is extensively glazed with fixed, full-height metal windows. Set within this window system are multiple entrances, each comprising paired, glazed metal doors. There are additional entrances on the side (north and south) façades, which also consist of glazed metal doors. Decorative details are limited to signage.

Primary interior spaces include a narrow full-height lobby with quarry tile floors and a mezzanine with metal handrails; and a full-height auditorium with raked floors and stadium-style seats.

The building appears to be unaltered.

***P3b. Resource Attributes:** (List attributes and codes) HP10. Theater; HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Theatre Arts/TA, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1972 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/15/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # ______
HRI ______

BUILDING, STRUCTURE AND OBJECT RECORD

***NRHP Status Code** 3B, 3CB

B1. Historic Name: Studio Theater

B2. Common Name: Theatre Arts (TA)

B3. Original Use: Theater/Auditorium B4. Present Use: Theater/Auditorium

***B5. Architectural Style** New Formalist

***B6. Construction History:** (Construction date, alterations, and date of alterations)
(see Page 3)

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** ______ **Original Location:** ______

***B8. Related Features:** (none)

B9a. Architect: Frank Homolka and Associates b. Builder: Not determined

***B10. Significance: Theme** Architecture and Design **Area** Long Beach

Period of Significance: 1972 **Property Type:** Institutional **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Summary Statement of Significance:

The Theatre Arts Building appears to be individually eligible for the National Register and California Register under Criterion C/3. What follows is a discussion of how this determination of eligibility was made.

In addition to being individually eligible, the building is a contributor to the Upper Campus Historic District.

Historic Contexts

Historic Context: New Formalist Architecture

The Theatre Arts Building is designed in the New Formalist style, a derivative of the Mid-Century Modern movement that shaped the CSULB campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this locally-derived dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

(continued on page 3)

B11. Additional Resource Attributes: (List attributes and codes) ______

***B12. References:** *(see Page 5)*

B13. Remarks:

***B14. Evaluator:** Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***Date of Evaluation:** 8/15/2022

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

ARG, 2019
Base map source: ESRI World Topo Map

Primary #
HRI

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

***B6. Construction History** *(continued from page 2):*

- 1970. Ground broken on subject building (originally called Studio Theatre)
- 1972. Construction completed

***B10. Significance** *(continued from page 2):*

Various experiments in Modern architecture that were introduced in the early 20th century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament. International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made." At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans. Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of postwar Modernism. Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism's emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.

By the late 1960s, some campus architects designed buildings that were still firmly rooted in the Mid-Century Modern movement but also exhibited abstracted Classical proportions and motifs. This derivative of Mid-Century Modernism is known as the New Formalist

(continued on page 4)

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

B10. Significance** *(continued from page 3):**

style and was most commonly expressed in the context of banks, auditoriums, and college and university campuses. New Formalism represented a reaction to, but not a complete diversion from, the orthodoxy of postwar Modern architecture and the International style. Its exponents exercised some creative license by incorporating elements of Classical architecture like strict symmetry, arches, and colonnades, albeit in abstract ways.

Character-defining features of New Formalist architecture include the following:

- Strict symmetry and formality
- Buildings are often monumental in size, scale, and appearance
- Flat roof, often with a heavy projecting overhang that emulates a simplified cornice
- Smooth wall surfaces, often travertine or concrete
- Colonnades comprising full-height columnar supports
- Incorporation of arches and rounded openings is common
- Minimal surface ornament and decorative details
- Integrated landscapes, often in the form of courtyards or plazas

<u>Historic Context: Frank Homolka and Associates, Architect</u>
The Theatre Arts Building was designed by the architectural firm Frank Homolka and Associates.

Frank Homolka (1922-2008) was a Long Beach-based architect who primarily specialized in the design of banking and financial services buildings. Born in Harbor City and raised in San Pedro, he joined the offices of Long Beach architect Francis J. Heusel after returning from military service in World War II. Initially a draftsman at the firm, Homolka was promoted to partner in 1960, and the firm thereafter became known as Heusel, Homolka and Associates. During the 1960s, the firm designed a considerable number of bank savings and loan buildings, both in Long Beach and throughout the Southern California region. A frequent client was the California Federal Savings and Loan Association (Cal Fed). Notable examples of the firm's output at this time include large, Modern office buildings for Cal Fed in the Westwood (1964) and Echo Park (1966) neighborhoods of Los Angeles, the Belmont Plaza Olympic Pool complex in Long Beach (1968), and numerous branch bank locations for Cal Fed and a number of other major financial institutions. In 1968, the Belmont Plaza project won an award from the Portland Cement Association and the Southern California Ready-Mixed Concrete Association for its "creative use of concrete."

Heusel died in 1968, and the firm was subsequently re-named Frank Homolka Associates. Homolka carried forward the firm's reputation as a deft designer of banks and financial institutions. In addition to the firm's longstanding relationship with Cal Fed, Homolka was a favored architect of financier Howard Ahmanson, and notably designed several buildings for the Home Savings and Loan Association, often in collaboration with noted architectural designer and muralist Millard Sheets. To a lesser extent, he also undertook the design of schools and office buildings, and was involved in the design of the Long Beach Civic Center Complex (1977) – a project on which he closely collaborated with fellow CSULB architects Hugh and Donald Gibbs and Edward Killingsworth.

Homolka exhibited deft and comfort working in a variety of postwar Modern styles, but given his firm's close association with the design of banks, financial institutions, and other historically formal building types he honed a reputation as a master of the New Formalist style. His signature New Formalist style is showcased in the Theatre Arts Building that his firm designed for the CSULB campus in 1972. Homolka retired from practice in 2001 and died in 2008.

<u>Evaluation of Significance</u>
The Theatre Arts Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the New Formalist style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the New Formalist style that are expressed in the design of the subject building include its monumental scale and massing, its prevailing sense of symmetry and balance, a flat roof and wide eave, and an abstracted colonnade comprising full-height columnar supports. These features provide the building with a level of articulation that renders it a notable example of New Formalist architecture as applied to an institutional building, and is valuable to a study of this derivative of the postwar Modern architectural movement. Its design demonstrates how the essential tenants of Classical architecture were deftly blended together with those belying Modernism.

(continued on page 5)

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

***B10. Significance** *(continued from page 4):*

The building also satisfies Criterion C/3 for representing the work of master architect Frank Homolka and Associates. Its design exemplifies the firm's – and specifically Homolka's – keen ability to design buildings that amalgamate the formal tenants of Classical design and the structural expression and rationality associated with the Modern movement. This building was also one of the firm's more notable institutional projects, and is cited in documentary sources as a notable commission in the context of its overall output.

In addition to being individually eligible, the Theatre Arts Building is a contributor to the Upper Campus Historic District.

Evaluation of Integrity
The Theatre Arts Building appears to be unaltered. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association, and thus retains sufficient integrity for listing in the National Register and California Register.

Period of Significance
The period of significance for the Theatre Arts Building has been identified as 1972, corresponding to the building's original date of construction.

Character-Defining Features
The following have been identified as character-defining features of the Theatre Arts (TA) building:
- Symmetrical façades (west, north, south)
- Flat roof with wide eaves
- Slender concrete column supports that form an abstracted colonnade
- Exterior walls clad in Norman brick and painted concrete
- Extensive glazing comprising fixed, floor-to-ceiling metal windows and glazed doors (west façade)
- Double-height lobby with quarry tile floors, mezzanine, and metal handrails (interior)

***B12. References** *(continued from page 2):*

Bernstein, David, and Kaye Briegel. "California State University, Long Beach – A Historical Overview: 1949-1989." Essay prepared 1989. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

"Campus-Wide Historic Context for California State University, Long Beach." Prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability. Jun. 2019.

"CSULB Campus Building Starts, Completions, and Dedications." Manuscript. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

CSULB Office of Physical Planning and Sustainability. Archived building plans and construction documents for Hillside College (multiple dates).

"Eleven Structures Cited for 'Creative Use of Concrete.'" *Los Angeles Times*. Mar. 30, 1969.

Entenza, John. "Announcement: The Case Study House Program." *Arts and Architecture* (Jan. 1945): 37-39.

Gibbs, Hugh. "LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

Green, Terence M. "An Artist in Architecture: Edward Killingsworth of Long Beach is Known Worldwide." *Los Angeles Times.* May 1, 1983.

Killingsworth-Brady-Smith and Associates. "Projected Master Plan for Long Beach State College." Campus master plan. 1963. Accessed Sept. 19 via the CSULB Library Special Collections and University Archives.

Primary #
HRI

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

B12. References** *(continued from page 5):**

"LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

Los Angeles Conservancy. "Killingsworth, Brady and Smith." Accessed Sept. 2019. https://www.laconservancy.org/architects/killingsworth-brady-and-smith

National Register of Historic Places Multiple Property Documentation Form. "The Case Study House Program: 1945-1966." Prepared Dec. 2012, revised Mar. 2013.

Shivers, Natalie W. "Architecture: A New Creative Medium." *LA's Early Moderns: Art/Architecture/ Photography*. Los Angeles: Balcony Press, 2003.

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

Image 2. West elevation, view southeast (ARG, 2019)

Image 3. South elevation, detail of colonnade, view north (ARG, 2019)

Image 4. South and east elevations, view northwest (ARG, 2019)

Image 5. North elevation, view southwest (ARG, 2019)

Image 6. Theatre Arts Building under construction, 1971 (CSULB Library Special Collections and University Archives)

Image 7. Theatre Arts Building under construction, 1971 (CSULB Library Special Collections and University Archives)

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/15/2022 ☒ Continuation ☐ Update

Image 8. Theatre Arts Building, ca. 1970s (CSULB Library Special Collections and University Archives)

Image 9. Theatre Arts Building, 1992 (CSULB Library Special Collections and University Archives)

Image 10. Theatre Arts Building, ca. 1970s (CSULB Library Special Collections and University Archives)

Image 11. Theatre Arts Building, primary entrance and colonnade, 1992 (CSULB Library Special Collections and University Archives)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B, 3CB
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

P1. Other Identifier: The College Union (historic name)

***P2. Location:** ☐ Not for Publication ☒ Unrestricted ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The University Student Union (USU) anchors the north end of the Upper Campus Historic District. Integrated into the slope of a gentle hill that divides the campus between north and south, this building is three stories tall, is built of concrete, and has an irregular plan that responds to the varied topography of the site. It was designed by the architectural firm of Killingsworth-Brady and Associates in the Mid-Century Modern style. The building is characterized by its overt structural expression and its overtures to the post-and-beam method of construction. It is capped by a flat roof with a wide eave and exposed concrete beams. Exterior walls generally consist of painted concrete, though portions are finished in a Norman brick veneer. The north façade is deeply recessed and sits behind full-height concrete columns. There are multiple points of ingress, most of which consist of glazed metal doors. Some of the entrances are located on upper levels and accessed via exterior stairs. The south façade is approached by a paved forecourt that sits partially below grade. Fenestration consists of fixed metal windows. Decorative details are limited to awnings and signage. The west volume of the building is an addition (1998) that was designed to emulate the form and appearance of the original building.

Interior spaces vary widely. The ground floor has a large vestibule which serves as the main point of ingress from the north and has quarry tile floors and suspended ceilings. This vestibule leads to student recreational and amenity spaces including a bowling alley,

(continued on page 3)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) University Student Union/USU, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1972 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☒ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

Primary #
HRI

BUILDING, STRUCTURE AND OBJECT RECORD

*NRHP Status Code 3B, 3CB

B1. Historic Name: The College Union

B2. Common Name: University Student Union (USU)

B3. Original Use: Student Services Center B4. Present Use: Student Services Center

***B5. Architectural Style** Mid-Century Modern

***B6. Construction History:** (Construction date, alterations, and date of alterations)
(see Page 3)

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** **Original Location:**

***B8. Related Features:** (none)

B9a. Architect: Killingsworth-Brady and Associates b. Builder: James I. Barnes Construction Co.

***B10. Significance: Theme** Architecture and Design **Area** Long Beach

Period of Significance: 1972-1998 **Property Type:** Institutional **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Summary Statement of Significance:
The University Student Union appears to be individually eligible for the National Register and California Register under Criterion C/3. What follows is a discussion of how this determination of eligibility was made.

In addition to being individually eligible, the building is a contributor to the Upper Campus Historic District.

Historic Contexts
Historic Context: Mid-Century Modern Architecture
The University Student Union is designed in an institutional derivative of the Mid-Century Modern style unique to the CSULB campus, which was applied throughout the campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

(continued on page 3)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** *(see Page 6)*

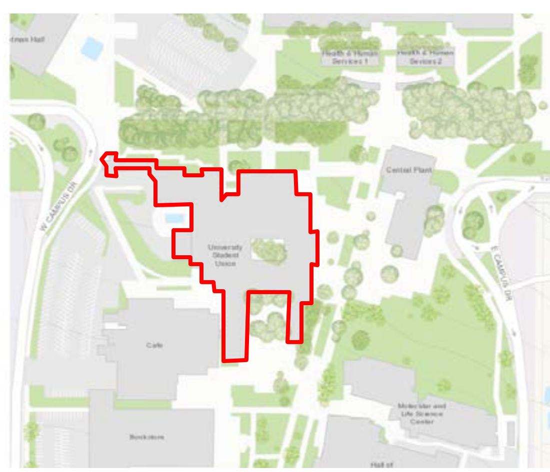
B13. Remarks:

***B14. Evaluator:** Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***Date of Evaluation:** 8/16/2022

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



ARG, 2022
Base map source: ESRI World Topo Map

Primary #
HRI

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 2):*

billiard room, pool, auditorium, offices, and conference rooms and lounges. Most of the ground floor interior spaces appear to have been altered. The second floor has a double-height lobby that serves as the main point of ingress from the north and west. The lobby has quarry tile floors and exposed concrete beam ceilings. It feeds into a continuous corridor that wraps around the perimeter of the second floor and opens onto dining facilities, conference rooms, and offices, most of which also appear to have been altered. The third floor consists of offices and conference rooms, which generally have carpeted floors and suspended ceilings.

Alterations include replacement of some original doors, and an addition to the west elevation (1998) that was completed by original architect (and campus consulting architect) Edward Killingsworth (through his firm Killingsworth, Stricker, Lindgren, Wilson and Associates). The addition is known as the "West Wing and Third Floor Addition."

***B6. Construction History** *(continued from page 2):*

- 1969. Ground broken on subject building
- 1972. Construction completed
- 1998. Construction of annex (called West Wing and Third Floor Addition) completed

***B10. Significance** *(continued from page 2):*

Various experiments in Modern architecture that were introduced in the early 20th century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament. International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made." At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans. Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of postwar Modernism. Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism's emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.

(continued on page 4)

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

B10. Significance** *(continued from page 3):**

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture and the architecture of CSULB, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system
- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often expressed as courtyards or plazas

<u>Historic Context: Killingsworth, Brady and Associates, Architects</u>
Based in Long Beach, Killingsworth-Brady and Associates was the second iteration of the renowned Southern California architectural practice headed by Edward Killingsworth. Born in Taft, California, Edward Abel Killingsworth (1917-2004) was raised in Long Beach and attended the University of Southern California. In his youth, he exhibited a passion for the fine arts and aspired to be a painter or sculptor – "I would rather paint than eat," he once said – but eventually turned his attention to architecture, earning his B.Arch degree in 1940. Killingsworth served as a captain in the U.S. Army Corps of Engineers during WWII; after his military service, he returned to California. He settled in Long Beach and secured a job as a designer in the office of architect Kenneth S. Wing.

Jules Brady (1908-1996) and Waugh Smith (1917-2010) also worked as designers in Wing's office at this time. Like Killingsworth, Brady had received an architecture degree from the University of Southern California in 1940. Smith received an architecture degree from UC Berkeley, also in 1940.

In 1951, while still working for Wing, Killingsworth designed his first solo project: a 743- ft^2 combination office-dwelling for his in-laws in Los Alamitos, which he designed in a Post-and-Beam style. The directness and simplicity of this small edifice caught the attention of *Arts and Architecture* editor and Modernism devotee John Entenza, who featured it in the magazine's January 1952 issue. The opportunity to be featured in such a prominent publication lent momentum to Killingworth's career; in 1953, he and fellow designers Jules Brady and Waugh Smith left Wing's office and established their own architectural practice, which was named Killingsworth-Brady-Smith and Associates.

Though all three architects contributed to the firm's overall output and growth, its prevailing design aesthetic was predominantly influenced by Killingsworth's signature Post-and-Beam style. Killingsworth's style was defined by such features as "spacious interior courtyards containing water features and secluded patios; tall doors and entry spaces; flat roof structures; open, light-filled rooms aided by large quantities of floor-to-ceiling windows and walls; and a seemly interplay" between buildings and their sites. These qualities coincided with the core objectives of the Case Study House Program, and so Killingsworth was tapped by John Entenza to design six houses for inclusion in *Arts and Architecture* magazine. Of the six Case Study prototypes developed by Killingsworth, four were completed; three are located in La Jolla, and the fourth – the Eddie Frank House, or Case Study House No. 25 – is located on Naples Island. Built in 1962, Case Study House No. 25 was lauded by the eminent architectural photographer Julius Shulman as "the most successful of all the Case Study houses." It cemented the firm's reputation as a leading exponent of high quality, custom houses.

(continued on page 5)

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

B10. Significance** *(continued from page 4):**

It was residential design that thrust Killingsworth into the national spotlight, but his firm also designed projects in the commercial and institutional realms. Prominent commissions include the firm's own offices in North Long Beach (1957), the campus of Alondra Junior High School in Paramount (1959), and several notable buildings within the Long Beach Civic Center including the Long Beach County Building (1960) and the Long Beach Public Safety Building (1960). In 1960, the firm designed an office building in Bixby Hills for the Cambridge Investment Corporation, which was subsequently recognized by an international design exhibition "not only as one of the eighteen best buildings in the United States, but as the top-designed commercial structure in the world." These projects, among others, demonstrated Killingsworth's deft in designing buildings whose elegance and grace were derived from their simplicity.

Unlike many of his Case Study peers, who generally transitioned into academic and critical roles, Killingsworth's commercial career remained remarkably successful after the program was completed. By the 1960s he and his firm had carved out a new niche in the design of hotels, and particularly luxury hotels. Large-scale hotel projects like the El Paso Hilton Inn in Texas (1959), the Kahala Hilton in Honolulu (1964), and the Kapalua Bay Hotel in Maui (1977) increasingly sustained his architectural practice and defined the later chapters of his vast annals of work. Killingsworth-designed hotels were built around the world in such exotic locales as Guam, Japan, South Korea, Malaysia, and Indonesia.

One especially important moment in Killingsworth's post-residential career came in 1962, when his firm was retained by CSULB to serve as the campus's consulting architect. In addition to revising the campus's master plan, the firm – and specifically Killingsworth – was tasked with overseeing the design of new campus buildings and facilities to ensure that development of the campus remained orderly and cohesive. Waugh Smith left the firm shortly thereafter, in 1962, and the practice, previously known as Killingsworth-Brady-Smith and Associates, was re-named Killingsworth-Brady and Associates (KBA). Killingsworth's role as CSULB's consulting architect appears to have been largely advisory; he helped select private practice architects to design new buildings and facilities on campus, and then worked with these architects to ensure that their designs conformed to the campus's master plan and prevailing architectural vocabulary. Killingsworth's firm did design a handful of buildings on the campus including a remodel and expansion of the campus bookstore (1966) and the University Student Union (1972), in addition to some later building projects.

In 1982, Jules Brady retired from KBA, and Killingsworth subsequently entered into partnership with architects Larry Stricker, Ron Lindgren, and Robert Wilson, all of whom had worked in his office. The firm was thereafter re-named Killingsworth, Stricker, Lindgren, Wilson and Associates. Ed Killingsworth continued to serve as CSULB's consulting campus architect until retiring in 2001. He died in 2004.

Evaluation of Significance
The University Student Union is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include expressed post-and-beam construction, simple geometric forms, a flat roof with wide projecting eaves, a simple material palette comprising Norman brick and painted concrete, the juxtaposition of solid walls against ribbons of glass, a dearth of ornament, and an integral relationship between building and site. Like the McIntosh Humanities Building anchors the Upper Campus to the south, this building anchors the Upper Campus to the north, and stands as a similarly bold architectural statement. It exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

The building also satisfies Criterion C/3 for representing the work of master architect Killingsworth-Brady and Associates. It is a successful example of how the firm– and particularly its namesake and principal, Edward Killingsworth – took the fundamental elements of its quintessential post-and-beam aesthetic, transposed them to a larger scale and an institutional context, and designed buildings that were just as aesthetically pleasing as they were functional. This building is significant as one of the firm's more notable institutional projects, and is widely cited in documentary sources as a pivotal commission in the context of its overall output.

In addition to being individually eligible, the University Student Union is a contributor to the Upper Campus Historic District.

(continued on page 6)

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***B10. Significance** *(continued from page 5):*

Evaluation of Integrity

Though a large addition was appended to the west elevation of the University Student Union in 1998, it was designed by original architect Edward Killingsworth and carries forward the architectural vocabulary of the original volume of the building. As such, the 1998 addition is important in its own right and complements – rather than detracts from – the original building and its architectural significance. For this reason, the building, while altered, retains integrity of location, design, setting, materials, workmanship, feeling, and association, and retains sufficient integrity for listing in the National Register and California Register.

Period of Significance

The period of significance for the University Student Union has been identified as 1972-1998. This encompasses the building's original date of construction, and also accounts for the 1998 addition that was designed in the same architectural style by original architect Edward Killingsworth.

Character-Defining Features

The following have been identified as character-defining features of the University Student Union (USU):

- Irregular plan
- Level changes that correspond to the topography of the site
- Exposed concrete structural system comprising painted concrete posts and beams
- Flat roof with wide eaves
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal doors
- Fixed metal windows
- Courtyard with quarry tile flooring and concrete planter beds (center of building)
- Cantilevered stairs with quarry tile treads and metal handrails (within courtyard)
- Entrance vestibule with quarry tile floors (interior, first floor)
- Double-height lobby with quarry tile floors and exposed concrete beam ceilings (interior, second floor)

***B12. References** *(continued from page 2):*

"Award of Merit." *Los Angeles Times*. May 18, 1969.

Bernstein, David, and Kaye Briegel. "California State University, Long Beach – A Historical Overview: 1949-1989." Essay prepared 1989. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

"Campus-Wide Historic Context for California State University, Long Beach." Prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability. Jun. 2019.

"College Union Rising Without Benefit of Public Tax Funds." *Los Angeles Times*. Sept. 14, 1969.

"Construction Started." *Los Angeles Times.* Apr. 20, 1969.

"CSULB Campus Building Starts, Completions, and Dedications." Manuscript. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

CSULB Office of Physical Planning and Sustainability. Archived building plans and construction documents for Hillside College (multiple dates).

Entenza, John. "Announcement: The Case Study House Program." *Arts and Architecture* (Jan. 1945): 37-39.

Gibbs, Hugh. "LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSULB Library Special Collections and University Archives.

(continued on page 7)

***B12. References** *(continued from page 6):*

Green, Terence M. "An Artist in Architecture: Edward Killingsworth of Long Beach is Known Worldwide." *Los Angeles Times.* May 1, 1983.

Killingsworth-Brady-Smith and Associates. "Projected Master Plan for Long Beach State College." Campus master plan. 1963. Accessed Sept. 19 via the CSULB Library Special Collections and University Archives.

"LBSC Proposed Campus, Hugh Gibbs, AIA." Campus master plan. n.d. Accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.

Los Angeles Conservancy. "Gibbs and Gibbs." Accessed Sept. 2019. https://www.laconservancy.org/architects/gibbs-and-gibbs

Los Angeles Conservancy. "Killingsworth, Brady and Smith." Accessed Sept. 2019. https://www.laconservancy.org/architects/killingsworth-brady-and-smith

National Register of Historic Places Multiple Property Documentation Form. "The Case Study House Program: 1945-1966." Prepared Dec. 2012, revised Mar. 2013.

Shivers, Natalie W. "Architecture: A New Creative Medium." *LA's Early Moderns: Art/Architecture/ Photography*. Los Angeles: Balcony Press, 2003.

Volland, Jennifer M., and Cara Mullio. *Edward A. Killingsworth: An Architect's Life*. Los Angeles: Hennessey + Ingalls, 2003.

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

Image 2. North elevation, view southwest (ARG, 2019)

Image 3. North and east elevations, view southwest (ARG, 2019)

Image 4. South elevation, view northeast (ARG, 2019)

Image 5. South elevation, detail of sunken forecourt, view north (ARG, 2019)

Image 6. West elevation, view southeast. This portion of the building dates to 1998 (ARG, 2019)

Image 7. Entrance canopy at west of building, view southeast. This portion of the building dates to 1998 (ARG, 2019)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary #
HRI

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

Image 8. University Student Union, 1982 (CSULB Special Collections and University Archives)

Image 9. University Student Union, 1973 (CSULB Special Collections and University Archives)

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3S, 3CS
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Generally bounded by Friendship Walk (north), S Campus Road/E 7th Street (south), E Campus Road (east), and W Campus Road (west)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Upper Campus Historic District is located in the southern portion of the campus of California State University, Long Beach (CSULB). This area is known as the "Upper Campus.". The district encompasses a large swath of the Upper Campus and is composed of a visually cohesive collection of buildings, site and landscape features, and public art installations, all of which were constructed between the mid-1950s and early 1970s. The district's 24 contributing buildings are designed in complementary iterations of postwar Modern architectural styles and exhibit common characteristics including flat roofs, exterior walls clad with Norman brick and painted concrete, metal doors and windows, and a dearth of applied ornament. Most buildings are loosely oriented around a central quadrangle that is planted with mature trees and wide lawns, and a broad axial promenade that projects to the north of the central quad and facilitates pedestrian circulation throughout this part of the campus. Most contributing buildings and site/landscape features within the district are either unaltered or minimally altered, and together they express a strong sense of time and place associated with the early development of CSULB and its physical plant in the mid-20th century. Common alterations include the replacement of some original doors and windows and minor modifications to designed landscapes. Additions have also been made to a few of the district's contributing buildings, many of which fall within the period of significance and were designed by the building's original architect.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building; HP29. Landscape Architecture

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ☒District ☐Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Upper Campus Historic District, context/setting, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1953-1972 (CSULB Office of of Physical Planning/Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☒ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☒ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

D1. Historic Name: (none) D2. Common Name: Upper Campus Historic District

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of the district.):

The Upper Campus Historic District is located in the southern portion of the campus of California State University, Long Beach (CSULB). The CSULB campus is generally flat, but exhibits some subtle variations in topography and gently rolling hills. Notably, there is a roughly-80-foot change in elevation when traveling from north to south; this grade change generally divides the campus into two halves. The south portion of campus – where the historic district is located – is known as “Upper Campus,” so named because it sits at an elevation that is slightly higher than its northern counterpart (which is known as “Lower Campus”).

The district is composed of academic buildings related to the fine arts, liberal arts, life and molecular sciences, education, and humanities, and is also the location of the library, theater center, bookstore, dining commons, and student union. Most development that occurred during the campus’s formative period of growth – in the 1950s and 1960s – was concentrated in the Upper Campus; thus, this area is more densely developed than the northern half of campus. Consistent with the original (1953) campus master plan for CSU Long Beach, most of the development in the Upper Campus is oriented around a rectilinear grid that is slightly askew of the cardinal directions. Research suggests that the grid was deliberately skewed in this manner in order to optimize natural light and shade conditions.

(continued on page 3)

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The Upper Campus Historic District encompasses an irregularly-shaped area that is generally bounded by Friendship Walk to the north, South Campus Road/East Seventh Street to the south, East Campus Road to the east, and West Campus Road to the west.

***D5. Boundary Justification:**

The boundaries of the identified historic district generally follow the early trajectory of campus development at CSULB; they were drawn to capture the area of the CSULB campus that retains enough cohesion and integrity to convey its association with significant contexts and themes related to mid-20th century institutional development and campus planning. Specifically, the east, west, and south boundaries were drawn to exclude visually incongruent elements like parking lots, extensively altered buildings, and buildings that post-date the district’s period of significance. The north boundary is coterminous with Friendship Walk. Although there are some contemporaneous buildings to the north of Friendship Walk, incompatible additions to some of these buildings, as well as the insertion of several new buildings, disrupts the sense of visual cohesion between areas to the north of Friendship Walk and those within the district.

***D6. Significance:** **Theme** Institutional Development; Campus Planning and Development; Architecture and Design **Area** Long Beach

Period of Significance: 1953-1972 **Applicable Criteria:** A/1; C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Summary Statement of Significance

The Upper Campus Historic District is eligible for listing in the National Register and California Register under Criteria A/1 and C/3. What follows is a discussion of how this determination of eligibility was made.

Historic Contexts

Historic Context: Institutional Development: Origins and Growth of CSU

Institutional Origins

The present-day California State University (CSU) is the descendent of an early institution known as the Minns’ Evening Normal School. Lawyer-turned-educator George Washington Minns founded the normal school in 1857 to provide job training for public school teachers. Under Minns’ tutelage, the school turned out 54 graduates, “all of whom were women.” In 1862, the State of California acquired Minns’ vocational academy for the purpose of training new teachers for the public elementary schools of the state. The institution was re-named the California State Normal School, and in 1871 the school was moved from its original location in San Francisco to a new campus in the community of San Jose.

(continued on page 3)

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

(see Page 17)

***D8. Evaluator:** Andrew Goodrich, AICP **Date:** 8/16/2022

Affiliation and Address: Architectural Resources Group, 360 E. 2nd Street, Suite 225, Los Angeles, CA 90012

***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***D3. Description** *(continued from page 2):*

There are 28 buildings within the boundaries of the district, of which 24 are contributors. With few exceptions, each building is uniquely designed and has its own catalog of architectural features, though they all ascribe to a common visual vocabulary that is rooted in the Mid-Century Modern style. This visual vocabulary was codified in the 1960s by consulting campus architect Edward Killingsworth.. Common architectural features that are expressed in contributing buildings include horizontal massing, expressed concrete structural systems, flat roofs, exterior walls that are clad with a Norman brick veneer and painted concrete, and metal doors and windows. Ornament is key to a minimum, and rather than being applied it tends to be expressed subtly. For some buildings, ornament is expressed through the application of features such as geometric *brise soleil* (as seen on the Bookstore/ BKS and McIntosh Humanities Building/MHB); for others, typical building materials like concrete, brick, and tile are manipulated and interpreted in creative ways to provide a sense of texture and visual interest (as seen as Faculty Office 3/FO3 and Fine Arts 4/FA4).

The district is defined in part by a corresponding designed landscape, which complements the clean lines and straightforward aesthetic of its Modern buildings. This landscape is defined by expansive lawns, mature trees, and shrubs and groundcover, resulting in an exceptionally verdant, parklike setting and a prevailing sense of visual cohesion. The focal point of the designed landscape is a central quadrangle that is located near the southern end of the historic district. The central quadrangle comprises an expansive lawn that is peppered with mature trees and bisected by a network of concrete footpaths. Projecting from the north end of the quad is a broad axial promenade that facilitates pedestrian circulation between the quad and other parts of campus. Hardscape features including concrete benches, concrete-and-brick paving, concrete steps, light fixtures, and covered breezeways dating to the period of significance are also incorporated into the built fabric of the district, further enhancing its visual cohesion and sense of time and place.

There is also a notable collection of public art within the district that includes sculptures, murals, and other creative media. Many of these art installations date to the 1960s and are associated with a sculpture symposium that was held on the CSULB campus in 1965; others were added later. Each installation is unique and reflects the creative whims of its respective artist. One of the most visually prominent art installations is the Carlson Bloc Bell Tower, a 65-foot concrete bell tower-and-carillon structure that is located in the center of the pedestrian promenade and exerts a commanding presence. Others can be found at various points throughout the district.

***D6. Significance** *(continued from page 2):*

Other branches of the California State Normal School were subsequently opened to keep pace with California's growing population and the demand imposed on public education. In 1882, a branch of the State Normal School opened in Los Angeles to serve California's southern tier, originally sited atop a hill in Downtown Los Angeles before moving to a new site in the Hollywood area many years later. "Tuition was free, and the three-year course of study included courses in penmanship, botany, and vocal music." Other branches of the State Normal School were opened in the communities of Chico (1887) and San Diego (1897). While the normal schools all fell under the umbrella of the state and all served the same objective of training future teachers, the campuses did not collectively operate as an integrated system, but rather, were still a loosely associated network of semi-autonomous institutions.

At about the same time, the State of California had been working on creating a new public university for the people of California. Originally known as the Agriculture, Mining, and Mechanical Arts College, the institution existed only on paper for many years as the state assembled the land and other resources needed to get the university up and running. The institution was named the University of California (UC), and a permanent campus opened in the community of Berkeley, across the Bay from San Francisco, in 1873. The UC differed from the State Normal School in that it provided a broad, liberal arts-based curriculum, whereas the latter focused solely on vocational training.

The purview of California's State Normal Schools necessarily evolved as these institutions matured. As part of a comprehensive reform package for California's education system, the State Normal Schools were re-branded as "State Teacher's Colleges" in 1921. This name change reflected how many of these institutions had evolved from normal schools, whose primary focus was imparting basic literacy skills to children, into teacher's colleges, which provided a broader-based and more robust curriculum that drew upon various disciplines in the liberal arts. Over time, the primary focus of State Teacher's Colleges shifted further away from pure vocational training in favor of a well-rounded, liberal arts-oriented education. In 1935, the institutions were once again re-branded, this time as "State Colleges."

The evolution of these campuses led to some confusion about the organization and governance of public education in California. As the state colleges broadened their purview and focused increasingly on the liberal arts, the distinction between these institutions and the

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***D6. Significance** *(continued from page 3)*:

University of California – whose purpose was to provide a liberal arts-based education – was muddled. Many UC administrators looked at the state colleges with disdain for "intruding" upon what they saw as their institution's liberal arts prerogative. To address these concerns and provide some clarity, state officials hired the Carnegie Foundation for the Advancement of Teaching to review the organization of California's public institutions of higher learning. In 1932, its findings were synthesized into a report that "provided a long list of recommendations to bring greater coherence and efficiency" to the system. The report included "the recommendation that the UC Regents absorb the state colleges;" however, this suggestion was resolutely rejected by administrators and faculty of the state colleges, who saw it as a power grab and rallied, successfully, to maintain their independence from the UC Regents.

Tensions between UC and state colleges were compounded by the fact that not one, but two state colleges defected from the system to become a part of the University of California. The first instance involved the state normal school at Los Angeles, which in 1919 was transferred to the UC Regents by state law and became the University of California, Los Angeles (UCLA). The second instance took place in 1944, when state legislators and California Governor Earl Warren adopted legislation allowing the UC Regents to take over the operations of Santa Barbara City College and re-open it as UC Santa Barbara.

Considerable strain was placed on all of California's public colleges and universities after World War II. The state's population was steadily growing and showed no signs of slowing down; military veterans who returned home from World War II were reaping the education benefits provided to them by the G.I. Bill; and the "Baby Boomers," which, at the time, was the largest generation in American history, was about to come of college age. Amid this period of remarkable growth, a number of new state colleges were founded to accommodate the scores of Californians desirous of a post-secondary education. These new campuses were sited in areas of the state that bore the brunt of population growth including Los Angeles (1947), Sacramento (1947), and Long Beach (1949). An additional seven campuses were authorized between 1957 and 1960. Unlike the University of California, which was overseen by the Board of Regents, state colleges continued to operate as independent entities and did not fall under the umbrella of a central agency.

Efforts were undertaken to systematize the disparate elements of the state college and university systems in the late 1950s. Developing a more structured and coherent framework, argued proponents, was needed to ensure that the quality of public education would be maintained in the face of rising demand. These efforts culminated in a policy document known as the California Master Plan for Higher Education, which divided the state's public colleges and universities into a three-tiered system consisting of the University of California (UC), the California State Colleges (CSC), and the California Community Colleges. Tiers were assigned differential function in terms of the degrees awarded and the types of programs sponsored, by the level of applicants in their high school graduating class, and by the mission embodied in the population of learners that each was intended to service. The Plan also championed the idea that all qualified California residents should be able to attend a public institution free of tuition expense, and would only be responsible for paying fees not directly related to instruction.

The Plan stipulated that state colleges would be teaching institutions that provided "instruction for undergraduates and graduate students, through the Master's degree, in the liberal arts and sciences, in applied fields and in the professions." State colleges, then, struck a sort of middle ground between the prestigious University of California, which was designated as "the primary state-supported academic agency for research" and the sole issuer of doctoral, law, and medicine degrees, and the more accessible community colleges, which offered general education courses and vocational and technical curricula. Students at community colleges were primed to transfer to a UC or CSC campus after two years of study.

Many provisions of the Plan were codified by the State Legislature in a bill known as the Donahoe Higher Education Act, which followed the recommendations of "A Master Plan for Higher Education in California, 1960-1975" and was signed into law by California Governor Edmund G. (Pat) Brown in 1960. Named for state assemblywoman Dorothy Donahoe, who played an instrumental role in steering the Master Plan for Higher Education, as it became known, through the legislative process, the bill was touted by Governor Brown as "the most significant step California has ever taken in the planning for the education of our youth." Adoption of the bill effectively marked the birth of the present-day CSU system by taking the individual state colleges that had been founded across the state and bringing them together as a single, unified entity known as the California State Colleges (CSC), and broadened the primary functions of the system to include undergraduate and graduate instruction in liberal arts and sciences, applied fields, and the professions, and authorized doctoral degrees when offered jointly with the UC. The Master Plan for Higher Education also centralized the operations of the state colleges by authorizing the appointment of a Board of Trustees and a Chancellor, who would preside over the entire CSC system.

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D6. Significance** *(continued from page 4):**

The centralization of state colleges under the 1960 Master Plan for Higher Education brought a sense of order to what had historically been a loosely organized and somewhat incongruent network of institutions. Reinforcing the CSC's overarching purpose as a four-year teaching institution (as opposed to the research functions of the UC, or the vocational training provided by community colleges), adopting uniform admission standards, and streamlining curricular requirements permitted campuses within the CSC system to accommodate more new students without compromising the quality of education. CSCs were an attractive option for students who either lacked the qualifications to be admitted into a UC school, or were more interested in a liberal arts-based education than one in academia or the "elite" pursuits of law or medicine. In 1972, the CSC was designated the "The California State University and Colleges", and in 1973 the "Consortium of The California State University and Colleges" was established and promoted as the "1,000-Mile College" to reflect the geographic reach of its campuses throughout the length of the state. In 1982, the Consortium was renamed the California State University or CSU, and remains so named to this day.

Associated Trends in Campus Planning and Architecture
As the CSU system (as it will henceforth be called for the sake of simplicity) experienced swift and steady growth in the early postwar period, existing campuses grew and expanded and new campuses were added to the system, administrators of the CSC system adopted a largely systematized approach to design and development at its campuses. Under this approach, the California State Division of Architecture was tasked with designing new buildings and facilities at CSU campuses. Like all public institutions, the CSU was constrained by finite resources and meager capital budgets. As a result, buildings designed by the State Division of Architecture tended to be based on simple, prototypical designs that were adapted to multiple campuses and failed to take into consideration the unique attributes of each campus and the architectural vernacular of the communities in which each campus was located.

Simply stated, the issue of managing campus development was approached through a wide-reaching, one-size-fits-all approach that met the immediate demands imposed by rapid institutional growth and sated capacity issues, but was criticized as being bland and banal. This became a sticking point at CSULB. Almost all of the buildings and facilities that were constructed at the CSULB campus during the 1950s – amid its first wave of sustained growth – were designed by the State Division of Architecture using standardized design prototypes. By 1960, nearly $31 million in improvements had been made to the campus, but administrators, students, and other campus affiliates were greatly dissatisfied with the environment imposed by the State Division of Architecture. Administrators groused "that buildings must not only be cheap to build but must look cheap as well. There was a real fear that the public of the State of California would be very upset if any building on a college campus was in the least attractive." Students were similarly dissatisfied and referred to the campus buildings as "San Quentin Modern," a derisive reference to the notoriously banal state prison near San Francisco (Ibid). This sentiment was shared at many other campuses within the CSU system that were quickly assembled in the early postwar period to keep pace with increased demand imposed by a growing state population.

This led to a change in the way that campus growth was managed. In 1961, the Board of Trustees for the State College system became so dissatisfied with the standardization and poor quality of the State Division of Architecture campus design at all state colleges that they discontinued using the State Division for future building projects. Instead, administrators decided on a new approach wherein private practice architects were selected to oversee the design at each CSU campus. Typically, these architects were prominent practitioners in their respective communities and were intimately familiar with the architectural vernacular of those communities, as well as with the opportunities and constraints presented by the campus settings. Rather than imposing systematized buildings and facilities across all campuses, CSU's new approach gave each individual campus a degree of free reign, whereby they could develop customized planning programs and architectural vocabularies suited to the unique conditions of their respective community – although planning and development at each campus would be overseen by a campus consulting architect appointed by CSU administrators. Consequently, by the early 1960s, each CSU campus was planned and developed quasi-independently at the campus level.

Edward Killingsworth – a renowned local practitioner with deep roots in Long Beach and a pedigreed reputation within the local community – was selected to serve as consulting architect for the CSULB campus. Killingsworth was appointed to this role in 1962, created an updated master plan for the campus that was adopted in 1963, and developed an architectural vocabulary for the campus that was codified by 1966. The vocabulary that Killingsworth developed for the CSULB campus was predicated on his approach to Mid-Century Modern architecture and planning, and incorporated design features that characterized the dialect of postwar Modernism that was applied in Southern California – and specifically in and around Long Beach – at this time.

Killingsworth's impact on the planning and design of the CSULB campus was of great importance. Beginning in the 1960s, he presided over a sea change in the CSU's traditional approach to the development of a campus; the new approach sharply veered away

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D6. Significance** *(continued from page 5):**

from uniform, systematized planning and architecture templates and toward a framework that was deliberately intended to respond to the unique conditions of the Long Beach community. Under Killingsworth's tenure, a more deliberate and locally sensitive approach to landscaping was also implemented. In the early 1960s, Edward Lovell – a locally acclaimed landscape architect and frequent collaborator of Killingsworth – was retained as consulting landscape architect for the CSULB campus. In this role, Lovell devised and implemented a campus landscape plan that complemented the architectural vernacular developed by Killingworth, and utilized Helen Borcher peach trees and other species that were well suited to, and commonly found in Long Beach (see Section 5.4, Architects and Designers, for detailed discussion of Lovell and Killingsworth) Thus, CSULB was designed by a team of Long Beach practitioners for the Long Beach community and using approaches to architecture and planning that were specific to Long Beach (see Section 5.3, Mid-Century Modern Architecture, for detailed discussion of these approaches).

Other contemporaneously developed CSU campuses, including CSU Dominguez Hills (A. Quincy Jones, campus architect; c. 1964), CSU San Bernardino (A.C. Martin, campus architect. c. 1965), and CSU Fullerton (Howard B. Van Heuklyn, campus architect, c. 1960), were likewise planned and designed by master architects in a manner that reflected the unique conditions of their respective environs.

For the Dominguez Hills campus, architect A. Quincy Jones drew upon his extensive experience at integrating structures and landscapes to create a campus environment that made the most of the local topography and climate. The campus core was "planned as an integrated combination of mainly 3-story buildings accessed by a walkway system at the second floor…this unusual design was created to adjust the plan to the prevailing topography and to visually isolate the campus from the development that surrounded it at the time: fields of oil wells, scattered industrial uses and high voltage power lines." Buildings that were erected at the campus in the 1960s and '70s, under Jones's direction, made frequent use of flat roofs with continuous overhangs, extensive use of glass, and vertical window fins for light regulation – all features that were intended to make "the rolling topography and mild outdoor climate part of the campus." The prevailing architectural vocabulary at the Dominguez Hills campus is best described as a blend of Brutalism and New Formalism – resulting in a collection of buildings that were staider and imposing than the lighter, tauter brick-clad buildings at CSULB that were erected at the same time and reflected the whims of Killingsworth.

A.C. Martin and Associates, a noted architectural firm in Los Angeles, was retained to develop the master plan and direct the early development of CSU San Bernardino. The master plan called for a cohesive architectural vocabulary that would be replicated across the campus, and would help to tie its buildings and facilities together as a unified whole. Campus President John M. Pfau described the architectural vision for the campus in 1964, before any buildings or site improvements had been built. "We want a softer feeling to blend the college into the mountain background…[and] we're trying to stay away from shiny, glossy, metallic materials." Poured concrete was selected as the basic material that would be incorporated into all campus and would act as the fundamental element of its architecture. Concrete was selected, in large part, because it was a durable material that would withstand the test of time and stand up to the area's notorious winds; it also commanded a sense of respect that was seen as appropriate for an institution seeking to assert itself as an institutional hub of the San Bernardino Valley.

At the Fullerton campus, architect Howard Van Heuklyn developed a master plan and associated architectural vocabulary that drew upon his own interest in expressionistic design, and was intended to complement the Modern identity of the Fullerton community. During the 1960s, Van Heuklyn presided over the construction of new campus buildings and facilities that together represented a particularly bold, expressionistic dialect of the New Formalist style and "gave the grounds striking, advanced engineering." Buildings that were erected at the Fullerton campus in the 1960s all ascribe to a unifying aesthetic that is arguably more futuristic, and more visually and structurally expressive, than those of other CSU campuses in Southern California that were developing during the same general time.

Comparative analysis of the CSULB, CSUDH, CSUSB, and CSUF campuses demonstrates how each individual campus within the CSU system attained a unique visual identity that reflected the whims of its respective architect and was tailored to the context and setting of its respective community. As a result, CSULB bears little in common with the above-listed CSU campuses in terms of campus layout, landscape setting, or architectural design.

<u>Historic Context: Origins and Development of CSULB</u>
The essential physical characteristics that define the Upper Campus Historic District – notably, its general location, site plan, architectural vocabulary, and symbiotic relationship between buildings and landscape – reflect concerted efforts at campus master

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D6. Significance** *(continued from page 6):**

planning for CSULB that were implemented in the 1950s and substantially amended in the 1960s. These master planning efforts laid the blueprint for all development at CSULB and played a significant role in shaping the campus's built environment.

What is now known as CSULB was established amid a period of intensive growth in California. Faced with unprecedented population growth and rapid suburbanization in the years after World War II, California's public colleges and universities struggled to keep pace with staggering increases in student enrollment. New campuses were founded at locations across the state that were witnessing significant increases in population. In the CSU system, new campuses were founded at Los Angeles (1947), Sacramento (1947), and Long Beach (1949). Yet more campuses were added in subsequent years at Fullerton (1957), Hayward (1957), Stanislaus (1957), Northridge (1958), Sonoma (1960), San Bernardino (1960), and Dominguez Hills (1960). The growth of California's system of public colleges and universities eventually led to the development of the Donahoe Higher Education Act of 1960, which codified the recommendations of the California Master Plan for Higher Education and assigned different functions to each of California's three institutions of higher learning: the University of California (UC), the California State College system (CSC, later re-branded as CSU), and the California Community College system.

Conceived in 1949, CSULB originated within this context of swift and steady institutional growth. That year, the California legislature passed Assembly Bill 8, which allocated $125,000 to establish a new four-year state college campus to serve the residents of southeast Los Angeles and Orange counties – two areas that were witnessing exceptionally swift growth after World War II. Initially known as the Los Angeles-Orange County State College, the new institution opened in the fall of 1949, with 160 students and nineteen faculty members. At this time, a site had not been selected for the new college, and the institution lacked permanent facilities; it initially operated out of a recently built apartment complex at 5401 East Anaheim Street that had been converted into a makeshift campus. Living rooms passed as lecture halls, bedrooms were used as offices, and garages were used for more intensive purposes like art studios and science labs.

Meanwhile, administrators were seeking a site for a permanent campus. Fullerton, Santa Ana, Lakewood, and Long Beach had all expressed interest in hosting the campus; in 1950 officials settled on a large, 320-acre swath of land on the eastern flank of Long Beach, much of which was owned by the Bixby family. The site comprised a large, T-shaped area that was punctuated by gently rolling hills and anchored by present-day Seventh (south) and Atherton (north) streets. Bisecting the center of the site was Anaheim Street, which charted a north-south course along the transect of the "T" and divided the campus into two halves: north (Lower Campus) and south (Upper Campus). By 1951, student enrollment had increased significantly, and as a result the apartments could no longer adequately accommodate the needs of the growing institution. Dozens of temporary, wood-frame structures that resembled army barracks were erected at the east end of Lower Campus while a permanent campus was realized.

The seeds of a permanent campus were sown in October 1950, when noted Long Beach architect Hugh Gibbs was selected to develop the institution's first-ever master plan. The master plan was envisioned as a blueprint that would guide the college's physical development in a cogent and cohesive manner, accommodating its programmatic needs while also working within the fiscal parameters set forth by the state. Toward this end, Gibbs developed a master plan that was rooted in the following core principles:

> *It was determined that the overall feeling of the design should stress simplicity without bleakness, dignity without sternness, be straight-forward, emanating a feeling of warmth and friendliness through the use of color and texture in the materials of construction. This approach dares not to be a timid one if it is to serve as an environmental influence in encouraging the students to constructive thought and action. In like manner, if a proper character and atmosphere can be developed on the campus, it will contribute immeasurably to the creative and cultural development of the students.*

The Gibbs master plan laid the groundwork for the physical form of the CSULB campus as it is experienced today. Specifically, it called for all buildings to be constructed of reinforced concrete, a durable material that was intended to evince a sense of permanence. Exterior walls would consist of exposed concrete and would be periodically accentuated by brick, plaster, terra cotta, and metal to add texture and visual interest. Emphasis was placed on orienting classrooms so that they would optimize natural light, and on enhancing the pedestrian experience through features like covered breezeways and integral landscaping. Gibbs called for most development to be located in the Upper Campus, around a central quadrangle whose axis was tilted to make the most of natural light and topography.

Gibbs's master plan for the campus was approved in 1953. Construction of the first permanent buildings began shortly thereafter, with several completed in 1955; others were subsequently added as schedules and funding permitted. While a few of these early buildings

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***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

D6. Significance** *(continued from page 7):**

were designed by Gibbs himself, most were designed by staff architects employed by the State Division of Architecture, using standardized designs that were replicated across the CSU system as a way of keeping construction costs down. The central quad also began to take shape at this time. Consistent with Gibbs's vision, most campus development was concentrated in the area to the south of Anaheim Street (Upper Campus); Lower Campus remained sparsely developed at this time apart from physical education facilities, athletic fields, and remnants of the temporary structures that supported the institution in its nascence.

Implementation of the Gibbs master plan represented a giant leap forward in the quest to develop a permanent campus. However, there were problems with the Gibbs master plan that became evident not long after it was implemented. Most pressing were issues related to capacity. Per the direction of administrators, Gibbs had developed the master plan to accommodate 5,000 full-time students, but student enrollment significantly surpassed early projections and swelled to 10,000 by the fall of 1960. Issues also arose with the college's reliance on the State Division of Architecture to execute Gibbs's vision. Specifically, administrators and students expressed dissatisfaction with the buildings designed by the State Division of Architecture, with many grousing that these buildings were bland and ubiquitous.

The Gibbs plan also did not include any provisions for student housing, which became a sticking point as student enrollment increased. In response, two dormitories – Los Alamitos and Los Cerritos halls – were constructed in 1959, in a peripheral area to the north and west of the academic core. These, too, were designed by the State Division of Architecture, and almost immediately fell short of meeting demand.

These issues underscored the pressing need for a new path forward. In 1961, the Board of Trustees for the CSU system had grown so dissatisfied with the quality of design at its campuses that it decided to discontinue using the State Division of Architecture and instead recruit private practice architects to oversee matters related to design and construction. At the Long Beach campus, the noted local architectural firm of Killingsworth-Brady-Smith and Associates was retained in 1962 to serve as consulting campus architect – a role that the firm, and specifically Killingsworth continuously filled until he eventually retired in 2001. Killingsworth's long tenure provided the Long Beach campus with a characteristically cohesive aesthetic that is uniquely suited to its setting and environs.

Killingsworth's first order of business was to revise the master plan for the campus, incorporating successful elements of the previous (Gibbs) plan but also accounting for its shortcomings. Toward this end a new master plan, developed by Killingsworth, was adopted in January 1963. It aspired "to recognize the many fine features of the original campus…[so that the completed college] will have the appearance of a total building program rather than one of parts." The 1963 master plan was decidedly more forward-reaching than its forebear, introducing a number of new design ideas that improved the student experience and continue to wield influence over the physical form of the campus to this day. The 1963 master plan was developed to accommodate an eventual campus population of 20,000 full-time students – far more enrollees than were planned for in the previous iteration of the master plan.

Key elements of Killingsworth's master plan included a monumental new entrance that approached the campus from the south, via Seventh Street; a formal plaza at the terminus of this entrance, dominated by a commanding, nine-story "theme building" that would showcase the campus's prevailing style of architecture; a three-story student union that would be tucked into a hillside site to preserve important views; and additional parking. The plan also called for the closure of Anaheim Road (now State College Drive), eliminating automobile traffic from the campus core, and laid the groundwork for an architectural vocabulary that would be applied across the campus and improve its quality of design.

The symbiotic relationship between buildings, landscapes, and site features was a resonant theme in Killingsworth's master plan. Notably, the plan called for the incorporation of sculpture, pools, fountains, and artwork throughout the central quadrangle "to create visual excitement and stimulation," the planting of trees and vines to counterbalance the rigidity of buildings, and the platting of a 60-foot-wide axial promenade between the Library (south) and the Physical Education building (north) to enhance the pedestrian experience. To Killingsworth, landscaping played just as much a role in shaping the campus's character as did its building program, and contributed to establishing a sense of place. A considerable number of the campus's landscapes were designed by landscape architect Edward "Ed" Lovell of Long Beach, who in 1964 was selected by the college to collaborate with Killingsworth.

Killingworth's master plan also addressed a wide void in the previous iteration of the master plan: student housing. It specifically called for the construction of a new dormitory complex to the northwest of the academic core, where Hillside College is located today. As described in the master plan:

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B12. References** *(continued from page 8):**

> *Housing in dormitories is planned for 5,000 students on the west portion of the lower campus. This housing will be medium high rise structures with the primary concern directed towards making the living personal and warm. The buildings are set on a residential type street which is separated from the academic life of the campus and directly connected to the cooperative housing [Los Cerritos/Los Alamitos Halls] so that there will be an interaction between these two areas. Food Services are in a separate building located just north of the existing dormitories.*

Construction of the complex began in 1967 and was completed by 1969. Along with the adjacent Los Cerritos and Los Alamitos Halls, it remained the center of residential life at the CSULB campus until additional residence halls – Parkside College and the International House – were built in the 1980s.

Historic Context: Mid-Century Modern Architecture
The Upper Campus Historic District is designed in an institutional derivative of the Mid-Century Modern style unique to the CSULB campus, which was applied throughout the campus during its formative years. Conceived by Hugh Gibbs and honed by Ed Killingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s. It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

Various experiments in Modern architecture that were introduced in the early 20th century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament. International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made." At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans. Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of postwar Modernism. Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid- Century Modernism's emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these

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***D6. Significance** *(continued from page 9):*

institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.

The group of architects who shaped and melded the CSULB campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive. Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.

Generally, the Mid-Century Modern style, expressed in the context of public institutional architecture and the architecture of CSULB, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system
- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often expressed as courtyards or plazas

Historic Context: Architects and Designers

The design of the Upper Campus Historic District is attributed to multiple Long Beach architects that worked in collaboration: Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs), Killingsworth-Brady and Associates of Long Beach, and Frank Homolka. Other architects who were involved in the design of buildings within the district include Arthur Froehlich, Clinton Ternstrom, and Robert Skinner, who collaborated under the name Joint Venture Architects. Edward Lovell, who served as the campus's consulting landscape architect, designed the district's landscape scheme.

Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs)

Hugh Gibbs, FAIA (1905-1990) was a prolific Long Beach architect. Gibbs studied architecture at the University of Southern California and opened an independent practice in 1934. Early in his career, he was involved in the design of large residential developments and military complexes; notably, in the late 1940s Gibbs was tapped to develop a master plan and design a Modern ranch-style resort hotel for the community of Apple Valley, roughly 90 miles northeast of Los Angeles. The hotel attracted a high-profile clientele that included Hollywood celebrities and prominent politicians. In the early 1950s, Gibbs was retained by CSULB to develop a master plan for the campus and design its first permanent buildings. In this capacity he laid the foundation for the institution's built form, lending impetus and inspiration to its basic orientation and its distinctively Modern architectural vocabulary.

Gibbs's son, Donald Gibbs, FAIA (1934-present) also studied architecture at the University of Southern California. He joined his father's firm in 1961, and was elevated to partner in 1964. During this time the practice was known as Gibbs and Gibbs. In addition to their contributions to the CSULB campus, Hugh and Donald Gibbs designed a number of buildings in Long Beach including their own offices (1963), the Long Beach Naval Hospital (1973), and the Long Beach Civic Center (1977). The Naval Hospital Project was recognized with a prestigious Award of Merit from the American Institute of Architects (AIA), which lauded its design as "an unusually clean solution to complicated hospital problems[s]." Notable commissions in other cities include the Warner Brothers Office Building in Burbank (1981) – a Late Modern style office building with an exaggerated post-and-beam structural system and staggered volumes that emulates a ziggurat – and the Navy Regional Medical Center in San Diego (1988). The Gibbs and Gibbs partnership

(continued on page 11)

***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***D6. Significance** *(continued from page 10)*:

remained active until the death of Hugh Gibbs in 1990. Donald Gibbs continued to practice architecture with his son, Kurt, and was retained by CSULB to design additional campus buildings including the Richard and Karen Carpenter Performing Arts Center (1994) and the Walter Pyramid (1994) – whose dramatic form and cobalt blue walls have become iconic symbols of the campus. Donald Gibbs received a Modern Master Award from the Los Angeles Conservancy in 2013. He remains a practicing architect and sculptor in Long Beach. His firm is now run by Kurt Gibbs, AIA and is called Gibbs Architects.

Gibbs and Gibbs are known as prominent local exponents of postwar Modernism, whose legacy is perhaps most enduring in and around their home city of Long Beach. In addition to being prolific, the firm is notable for its unique approach to Modern architecture, which was firmly rooted in the tenets of the postwar Modern movement but often pushed the envelope by incorporating sculptural forms, dynamic volumes, and overtures to past architectural traditions.

Killingsworth-Brady and Associates
Based in Long Beach, Killingsworth-Brady and Associates was the second iteration of the renowned Southern California architectural practice headed by Edward Killingsworth. Born in Taft, California, Edward Abel Killingsworth (1917-2004) was raised in Long Beach and attended the University of Southern California. In his youth, he exhibited a passion for the fine arts and aspired to be a painter or sculptor – "I would rather paint than eat," he once said – but eventually turned his attention to architecture, earning his B.Arch degree in 1940. Killingsworth served as a captain in the U.S. Army Corps of Engineers during WWII; after his military service, he returned to California. He settled in Long Beach and secured a job as a designer in the office of architect Kenneth S. Wing.

Jules Brady (1908-1996) and Waugh Smith (1917-2010) also worked as designers in Wing's office at this time. Like Killingsworth, Brady had received an architecture degree from the University of Southern California in 1940. Smith received an architecture degree from UC Berkeley, also in 1940.

In 1951, while still working for Wing, Killingsworth designed his first solo project: a 743- ft^2 combination office-dwelling for his in-laws in Los Alamitos, which he designed in a Post-and-Beam style. The directness and simplicity of this small edifice caught the attention of *Arts and Architecture* editor and Modernism devotee John Entenza, who featured it in the magazine's January 1952 issue. The opportunity to be featured in such a prominent publication lent momentum to Killingworth's career; in 1953, he and fellow designers Jules Brady and Waugh Smith left Wing's office and established their own architectural practice, which was named Killingsworth-Brady-Smith and Associates.

Though all three architects contributed to the firm's overall output and growth, its prevailing design aesthetic was predominantly influenced by Killingsworth's signature Post-and-Beam style. Killingsworth's style was defined by such features as "spacious interior courtyards containing water features and secluded patios; tall doors and entry spaces; flat roof structures; open, light-filled rooms aided by large quantities of floor-to-ceiling windows and walls; and a seemly interplay" between buildings and their sites. These qualities coincided with the core objectives of the Case Study House Program, and so Killingsworth was tapped by John Entenza to design six houses for inclusion in *Arts and Architecture* magazine. Of the six Case Study prototypes developed by Killingsworth, four were completed; three are located in La Jolla, and the fourth – the Eddie Frank House, or Case Study House No. 25 – is located on Naples Island. Built in 1962, Case Study House No. 25 was lauded by the eminent architectural photographer Julius Shulman as "the most successful of all the Case Study houses." It cemented the firm's reputation as a leading exponent of high quality, custom residential architecture.

It was residential design that thrust Killingsworth into the national spotlight, but his firm also designed projects in the commercial and institutional realms. Prominent commissions include the firm's own offices in North Long Beach (1957), the campus of Alondra Junior High School in Paramount (1959), and several notable buildings within the Long Beach Civic Center including the Long Beach County Building (1960) and the Long Beach Public Safety Building (1960). In 1960, the firm designed an office building in Bixby Hills for the Cambridge Investment Corporation, which was subsequently recognized by an international design exhibition "not only as one of the eighteen best buildings in the United States, but as the top-designed commercial structure in the world." These projects, among others, demonstrated Killingsworth's deft in designing buildings whose elegance and grace were derived from their simplicity.

Unlike many of his Case Study peers, who generally transitioned into academic and critical roles, Killingsworth's commercial career remained remarkably successful after the program was completed. By the 1960s he and his firm had carved out a new niche in the design of hotels, and particularly luxury hotels. Large-scale hotel projects like the El Paso Hilton Inn in Texas (1959), the Kahala

(continued on page 12)

***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

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***D6. Significance** *(continued from page 11)*:

Hilton in Honolulu (1964), and the Kapalua Bay Hotel in Maui (1977) increasingly sustained his architectural practice and defined the later chapters of his vast annals of work. Killingsworth-designed hotels were built around the world in such exotic locales as Guam, Japan, South Korea, Malaysia, and Indonesia.

One especially important moment in Killingsworth's post-residential career came in 1962, when his firm was retained by CSULB to serve as the campus's consulting architect. In addition to revising the campus's master plan, the firm – and specifically Killingsworth – was tasked with overseeing the design of new campus buildings and facilities to ensure that development of the campus remained orderly and cohesive. Waugh Smith left the firm shortly thereafter, in 1962, and the practice, previously known as Killingsworth-Brady-Smith and Associates, was re-named Killingsworth-Brady and Associates (KBA). Killingsworth's role as CSULB's consulting architect appears to have been largely advisory; he helped select private practice architects to design new buildings and facilities on campus, and then worked with these architects to ensure that their designs conformed to the campus's master plan and prevailing architectural vocabulary. Killingsworth's firm did design a handful of buildings on the campus including a remodel and expansion of the campus bookstore (1966) and the University Student Union (1972), in addition to some later building projects.

In 1982, Jules Brady retired from KBA, and Killingsworth subsequently entered into partnership with architects Larry Stricker, Ron Lindgren, and Robert Wilson, all of whom had worked in his office. The firm was thereafter re-named Killingsworth, Stricker, Lindgren, Wilson and Associates. Ed Killingsworth continued to serve as CSULB's consulting campus architect until retiring in 2001. He died in 2004.

Frank Homolka and Associates

Frank Homolka (1922-2008) was a Long Beach-based architect who primarily specialized in the design of banking and financial services buildings. Born in Harbor City and raised in San Pedro, he joined the offices of Long Beach architect Francis J. Heusel after returning from military service in World War II. Initially a draftsman at the firm, Homolka was promoted to partner in 1960, and the firm thereafter became known as Heusel, Homolka and Associates. During the 1960s, the firm designed a considerable number of bank, savings, and loan buildings, both in Long Beach and throughout the Southern California region. A frequent client was the California Federal Savings and Loan Association (Cal Fed). Notable examples of the firm's output at this time include large, Modern office buildings for Cal Fed in the Westwood (1964) and Echo Park (1966) neighborhoods of Los Angeles, the Belmont Plaza Olympic Pool complex in Long Beach (1968), and numerous branch bank locations for Cal Fed and a number of other major financial institutions. In 1968, the Belmont Plaza project won an award from the Portland Cement Association and the Southern California Ready-Mixed Concrete Association for its "creative use of concrete."

Heusel died in 1968, and the firm was subsequently re-named Frank Homolka Associates. Homolka carried forward the firm's reputation as a deft designer of banks and financial institutions. In addition to the firm's longstanding relationship with Cal Fed, Homolka was a favored architect of financier Howard Ahmanson, and notably designed several buildings for the Home Savings and Loan Association, often in collaboration with noted architectural designer and muralist Millard Sheets. To a lesser extent, he also undertook the design of schools and office buildings, and was involved in the design of the Long Beach Civic Center Complex (1977) – a project on which he closely collaborated with fellow CSULB architects Hugh and Donald Gibbs and Edward Killingsworth.

Homolka exhibited deft and comfort working in a variety of postwar Modern styles, but given his firm's close association with the design of banks, financial institutions, and other historically formal building types he honed a reputation as a master of the New Formalist style. His signature New Formalist style is showcased in the Theatre Arts Building that his firm designed for the CSULB campus in 1972. Homolka retired from practice in 2001 and died in 2008.

Joint Venture Architects

Joint Venture Architects was a partnership comprising three prominent Southern California-based architects: Arthur Froehlich, Clinton Ternstrom, and Robert Skinner. Froehlich founded his Beverly Hills-based practice in 1938 and is best known for designing mid-century supermarkets and racetrack arenas, both in California and throughout the United States. Ternstrom, originally from Seattle, studied architecture at the University of Southern California and formed a number of Los Angeles-based partnerships that specialized in civic and educational architecture. Skinner, also a University of Southern California graduate, was a Beverly Hills-based architect. He specialized in the design of custom residences and later entering into partnership with Ternstrom in 1965. These architects, working collaboratively as Joint Venture Architects, designed the expanded Library (LIB) and Multi-Media Center (MMC) at CSULB in 1971.

(continued on page 13)

***D6. Significance** *(continued from page 12)*:

California State Division of Architecture
The California State Division of Architecture is involved in project design and construction oversight over buildings in California that are publicly funded. This agency was created in 1933 under the auspices of the Field Act, which was passed in the wake of the Long Beach Earthquake (1933) and set mandates for earthquake-resistant construction through design standards and quality control procedures. Its staff of architects are involved in the design and construction of public buildings and facilities across the state, and typically design in architectural idioms that are popular at the time. Most of the early buildings at CSULB – those that were constructed in the 1950s and 1960s – were designed by the State Division, presumably as a way of streamlining design and keeping construction costs low. A majority of the early buildings at CSULB were designed by the State Division of Architecture. By the late 1960s, the university had begun to move away from relying on the State Division of Architecture, and instead recruited private practice architects to design new campus buildings under the direction of the campus's consulting architect, Edward Killingsworth.

Edward R. Lovell, Landscape Architect
Edward Raymond Lovell (1918-2008) was born in Washington but moved to Long Beach with his family at age four. He attended Woodrow Wilson High School, where he was acquainted with fellow student and future collaborator Ed Killingsworth. During World War II he enlisted in the Army; after his military service he attended the University of Oregon to pursue a graduate degree in landscape architecture. Lovell, now with wife and child, retuned to Long Beach in 1950 and obtained his license as a landscape architect. He was inducted into the American Society of Landscape Architects (ASLA) in 1953.Lovell worked in private practice for the next half century, designing landscapes and gardens for an array of residential and institutional clients. He often worked in collaboration with local architects Hugh Gibbs and Ed Killingsworth developing landscape schemes that complemented the Modern buildings and structures designed by the two firms. Much of Lovell's output appears to have consisted of small-scale commissions, including the design of gardens for private homeowners in Long Beach and other nearby communities. He also designed landscapes for some commercial and institutional clients.

In 1964, Lovell was retained as the consulting landscape architect for CSULB. This has been described in retrospectives of Lovell's life as the most significant commission of his career. In this role, Lovell played a significant role in developing a cohesive landscape scheme for the campus that complemented its Mid-Century Modern architecture and gave physical form to many of the programmatic concepts articulated in Killingsworth's 1963 master plan. Notable endeavors on the CSULB campus that are attributed to Lovell include the planting of 3,000 Helen Borchers peach trees in 1965, and the design of the 1.3-acre Earl Burns Miller Japanese Garden in 1981. In 1966 he designed Hillside College's landscape, which functions as the complex's proverbial spine and contributes to its physical character.

In addition to his ongoing work at CSULB, Lovell was involved in the design of landscapes and gardens at several other Long Beach institutions, albeit in a more limited capacity. Specifically, he designed projects at Long Beach Memorial Hospital, Long Beach Community Hospital, the Virginia Country Club, and several local churches. Lovell appears to have continued working in a consulting role at CSULB up until he retired from private practice in 1990. He died in Long Beach in 2008.

Evaluation of Significance
The Upper Campus Historic District is eligible for the National Register and California Register under Criterion A/1. The district, in its entirety, conveys significant patterns of institutional development related to the founding and early development of CSU Long Beach. Together, its buildings and site planning/landscape features tell the story of how in its nascence, the institution developed from a small commuter school into an important regional hub of higher education. The district is a physical expression of the myriad institutional factors and architectural and planning paradigms that came together to shape the early growth of the campus. As such, it embodies broad patterns of institutional history per Criterion A/1.

The district is also eligible for the National Register and California Register under NRHP Criterion C/CRHR Criterion 3. The district, in its entirety, embodies the distinctive characteristics of a historic type and period as an intact concentration of buildings and site planning/landscape features that together convey the architectural principles that were rooted in the Mid-Century Modern movement and so strongly influenced the character of the CSULB campus in its formative period of development.

In addition, the district satisfies NHRP Criterion C/CRHR Criterion 3 as a successful example of the collaboration between multiple notable architects/firms: Gibbs and Gibbs and Killingsworth-Brady and Associates (consulting architects), Edward Lovell (landscape architect), and the various project architects who worked under their direction. The architectural and landscape features that define the

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***D6. Significance** *(continued from page 13):*

district represent a meeting of the minds between these notable practitioners, showing how they demonstrated mastery in their respective areas of practice to create an environment that met the objectives of the campus master plan and was firmly rooted in the tenets of Mid-Century Modern architecture and planning.

Evaluation of Integrity
Generally, the district and its features have experienced relatively few alterations. Some of the individual buildings within the district boundaries have been extensively altered in recent years and therefore do not contribute to its significance. However, overall most buildings and site/landscape features within the district boundaries are minimally altered and appear much as they did during the period of significance (1953-1972). The district retains integrity of location, design, setting, materials, workmanship, feeling, and association, and thus retains sufficient integrity for listing in the National Register and California Register.

Period of Significance
The district's period of significance has been identified as 1953-1972. This accounts for the entire period during which its essential planning, architectural, and site and landscape features were planned, designed, and constructed. Development of the district was set in motion upon adoption of the first campus master plan in 1953; completion of the Theatre Arts (TA) building and the University Student Union (USU) in 1972 marked the last major additions to the Upper Campus per the vision prescribed in 1953/63 master plans.

Contributing and Non-Contributing Features
There are 28 buildings within the district, of which 24 (86%) contribute to its significance. The following 24 buildings are district contributors. Four district contributors are also individually eligible for listing, and are marked with an asterisk (*):

- **Academic Services/AS** (1955, Hugh Gibbs, addition by the State Division of Architecture in 1959)
  A two- and three-story building designed in the Mid-Century Modern style. Notable features include simple massing; a flat roof; Norman brick and painted concrete exterior walls; and bands of metal windows, some of which are set within a bezeled surround. A breezeway connects this building to the adjacent McIntosh Humanities Building (MHB).

- **Bookstore and Forty-Niner Shops/BKS** (1955, Hugh Gibbs, enlarged by Killingsworth-Brady and Associates 1966)
  A two-story building designed in the Mid-Century Modern style. Notable features include simple rectilinear massing, a flat roof, Norman brick and concrete exterior walls, extensive glazing, and a metal *brise soleil* on the east façade.

- **College of Liberal Arts Administration/CLA** (1954, Hugh Gibbs)
  A one-story building designed in the Mid-Century Modern style. Notable features include a low profile and simple massing, a flat roof, Norman brick and concrete exterior walls, bands of metal windows, and a continuous concrete slab canopy on the east façade. A breezeway connects this building to adjacent buildings.

- **Education 2/ED2** (1961, State Division of Architecture)
  A two-story building designed in the Mid-Century Modern style. Notable features include simple rectilinear massing, flat roof, Norman brick and concrete exterior walls, bands of metal windows, a metal canopy with "spider-leg" style support beams on the north façade, and applied dimensional signage n the south façade.

- **Ellis Education Building/EED** (1957. State Division of Architecture)
  A one-story building designed in the Mid-Century Modern style. Notable features include a low profile and simple massing, a flat roof, Norman brick and painted concrete exterior walls, bands of metal windows, a metal canopy with "spider-leg" style supports on the north façade, and a louvered *brise soleil*, also on the north façade.

- **Faculty Office 2/FO2** (1957, State Division of Architecture)
  A two-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and concrete exterior walls, and bands of metal windows. A breezeway connects this building to adjacent buildings.

- **Faculty Office 3/FO3** (1959, State Division of Architecture)
  A three-story building designed in the Mid-Century Modern style. Notable features include simple massing; a recessed ground story; a flat roof; Norman brick, painted concrete, and chromatic tile exterior walls; bands of metal windows, some of which have concrete slab canopies. A breezeway connects this building to adjacent buildings.

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***D6. Significance** *(continued from page 14)*:

- **Fine Arts 1/FA1** (1954, Hugh Gibbs)
  A two-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and painted concrete exterior walls, and extensive glazing comprising bands of metal windows. A breezeway connects this building to adjacent buildings.

- **Fine Arts 2/FA2** (1954, Hugh Gibbs)
  A two- and three-story building designed in the Mid-Century Modern style. Notable features include simple massing; a flat roof; Norman brick and painted concrete exterior walls; and extensive glazing comprising bands of metal windows, some of which are surmounted by thin slab canopies. A breezeway connects this building to adjacent buildings.

- **Fine Arts 3/FA3** (1958, State Division of Architecture)
  A one-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and painted concrete walls, and extensive glazing comprising bands of metal windows. A breezeway connects this building to adjacent buildings.

- **Fine Arts 4/FA4** (1962, State Division of Architecture)
  A two- and three-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and painted concrete exterior walls, alternating bands of sliding metal windows and fixed spandrel panels, a recessed ground story with decorative concrete columns, decorative *brise soleil*, and a mural on the south façade.

- **Language Arts Building/LAB** (1967, State Division of Architecture)
  A two-story building designed in the Mid-Century Modern style. Notable features include simple massing; a flat roof; Norman brick exterior walls with full-height concrete columns; minimal fenestration; and tall, narrow window channels that span the height of the building. A breezeway connects this building to adjacent buildings.

- **Lecture Hall 150-151/LH** (1955, State Division of Architecture)
  A one-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick exterior walls, an angled entrance, no fenestration, and a large metal sculpture affixed to the east façade. A breezeway connects this building to adjacent buildings.

- **Liberal Arts 1/LA1** (1962, State Division of Architecture)
  A three-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, painted concrete walls with incisions, and bands of metal windows, some of which have decorative *brise soleil*.

- **Liberal Arts 5/LA5** (1962, State Division of Architecture)
  A three-story building designed in the Mid-Century Modern style. Notable features include simple massing; a flat roof; Norman brick exterior walls; and bands of metal windows, some of which are surmounted by cantilevered slab hoods.

- **Library/LIB** (1971, Joint Venture Architects)
  A five-story -over-basement building designed in the New Formalist style. Notable features include simple massing, a vertical orientation, Norman brick and painted concrete exterior walls, fixed metal windows, and a brise soleil on the west façade.

- ***McIntosh Humanities Building/MHB** (1967, State Division of Architecture)
  A nine-story building designed in the Mid-Century Modern style. Notable features include simple massing and a compact plan, a flat roof, Norman brick and painted concrete exterior walls, a recessed ground story, alternating bands of metal windows and spandrel panels, and *brise soleil*. The building sits on a shallow plinth. A breezeway connects this building to the adjacent Academic Services (AS) and Language Arts (LAB) buildings.

- **Multi-Media Center/MMC** (1971, Joint Venture Architects)
  A one-story building designed in the New Formalist style. Notable features include simple massing, a flat roof, Norman brick and painted concrete exterior walls, minimal fenestration, and a concrete footbridge at the west entrance. This was originally a standalone building, but due to an addition to the adjacent Library it is now attached to the Library.

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***D6. Significance** *(continued from page 15):*

- ***Psychology Building/PSY** (1970, Gibbs and Gibbs)
  A three-story building designed in the Mid-Century Modern style. Notable features include asymmetrical massing, a flat roof, Norman brick exterior walls and glass curtain walls, full-height stair shafts with incised concrete panels, and tall and narrow metal window channels. The building is oriented inward toward a central courtyard.

- ***Theatre Arts/TA** (1972, Frank Homolka and Associates)
  A one-story building with double-height interior spaces designed in the New Formalist style. Notable features include a monumental east façade, a flat roof with wide eaves, Norman brick and painted concrete exterior walls, a colonnade comprising slender concrete columns, and metal windows. This building is attached to the University Theatre (TA) building.

- **University Dining Plaza/UDP** (1957, State Division of Architecture)
  A one-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and painted concrete exterior walls, fixed metal windows, projecting concrete fins on the east façade, and a wood trellis structure projecting from the east and south façades.

- ***University Student Union/USU** (1972, Killingsworth-Brady and Associates, addition by Killingworth in 1998)
  A three-story building designed in the Mid-Century Modern style. Notable features include a complex footprint that responds to surrounding topography, an expressed structural system, , a flat roof with wide eaves, painted concrete and Norman brick exterior walls, a recessed north façade with full-height concrete supports, fixed metal windows, and a paved forecourt.

- **University Telecommunication Center/UTC** (1958, State Division of Architecture)
  A one- and two-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof with metal decking, Norman brick and painted concrete exterior walls, and bands of metal windows.

- **University Theatre/UT** (1955, Hugh Gibbs)
  A one- and two-story building designed in the Mid-Century Modern style. Notable features include simple massing, a flat roof, Norman brick and painted concrete exterior walls, an oblique canopy on the north façade, and minimal fenestration. A breezeway connects this building to adjacent buildings. This building is also attached to the Theatre Arts (TA) building.

The corresponding designed landscape, site and hardscape features, and public art installations are all related features of the district that contribute to its significance.

The following four buildings are district non-contributors:

- **Art Annex/ANNEX** (1970, architect not determined)
  A one-story modular building designed in a vernacular style. This building was identified as a non-contribute because it does not represent the historic contexts and themes associated with the district's significance.

- **Liberal Arts 2/LA2** (1954, Hugh Gibbs)
  A one- and two-story building originally designed in the Mid-Century Modern style and renovated in 2015. This building was identified as a non-contributor because it has been altered and does not retain sufficient integrity to convey significance.

- **Liberal Arts 3/LA3** (1954, Hugh Gibbs)
  A one- and two-story building originally designed in the Mid-Century Modern style and renovated in 2015. This building was identified as a non-contributor because it has been altered and does not retain sufficient integrity to convey significance.

- **Liberal Arts 4/LA4** (1955, Hugh Gibbs)
  A one- and two-story building originally designed in the Mid-Century Modern style and renovated in 2015. This building was identified as a non-contributor because it has been altered and does not retain sufficient integrity to convey significance.

***D7. References** *(continued from page 2):*

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***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

Image 2. Upper Campus Historic District, view from central quad, view northeast (ARG, 2019)

Image 3. Upper Campus Historic District, view of pedestrian promenade, view northeast (ARG, 2019)

Image 4. Upper Campus Historic District, pedestrian promenade and public art (Carlson Bloc Bell Tower), view southwest (ARG, 2019)

Image 5. Upper Campus, central quad, view northwest, 1959 (CSULB Library, Special Collections and University Archives)

Image 6. Upper Campus, central quad, view northeast, 1964 (CSULB Library Special Collections and University Archives)

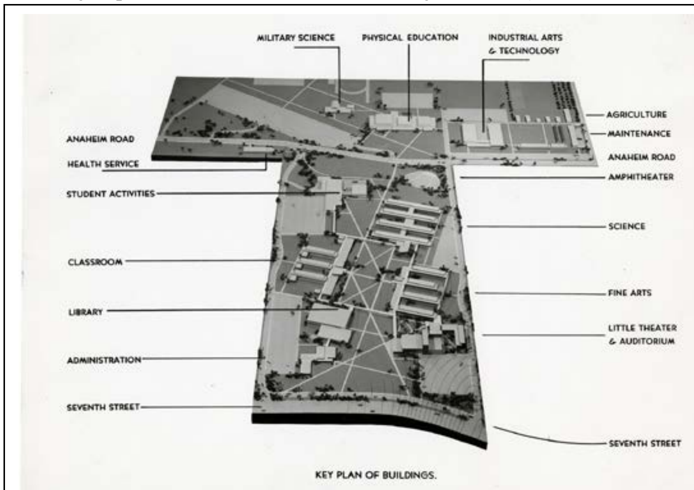

Image 7. Site plan from 1953 Master Plan, with Upper Campus in foreground (CSULB Library, Sp. Collections and University Archives)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
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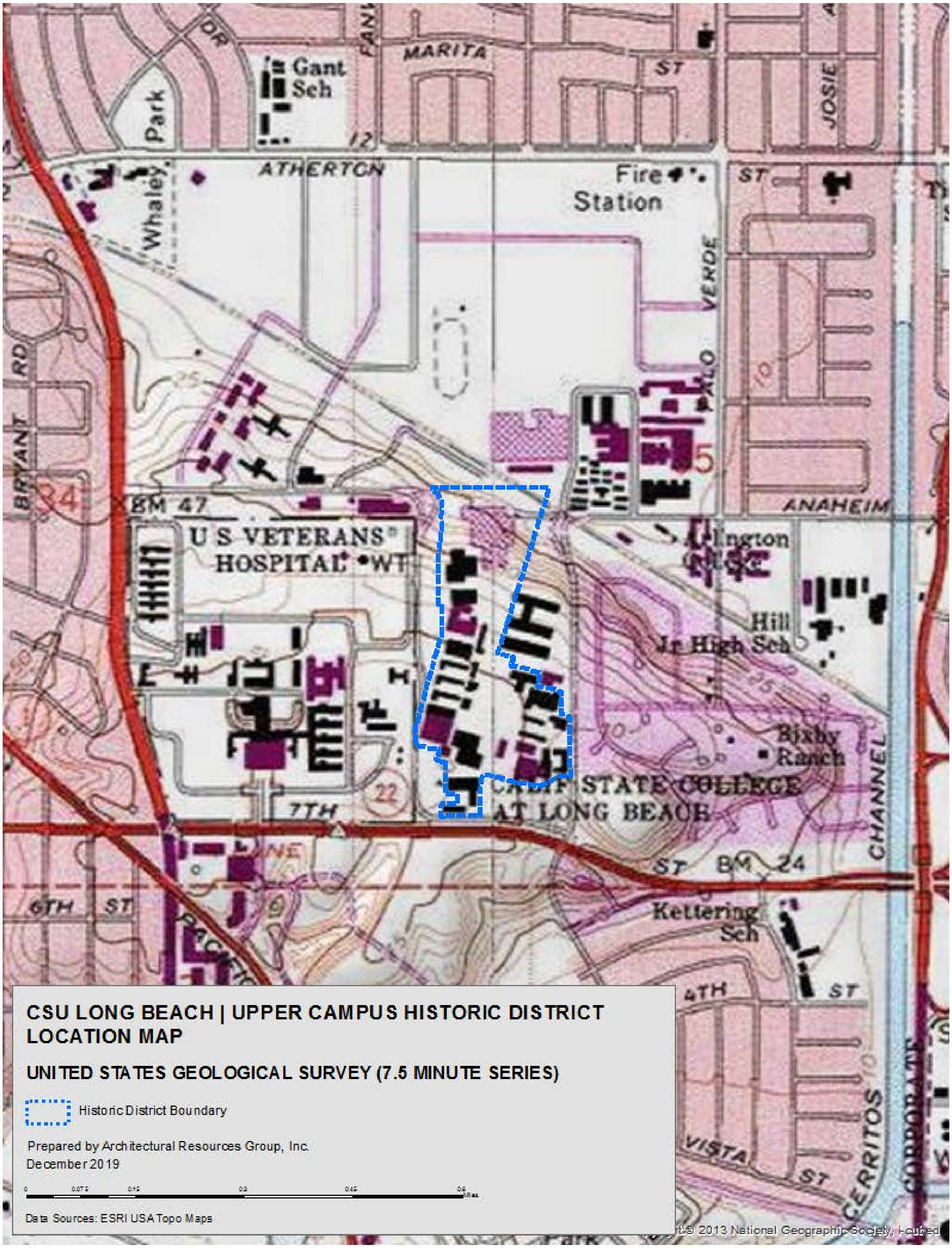
*Resource Name or # (Assigned by recorder) Upper Campus Historic District

*Map Name: Location Map *Scale: See scale bar *Date of Map: 8/16/2022



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Primary #
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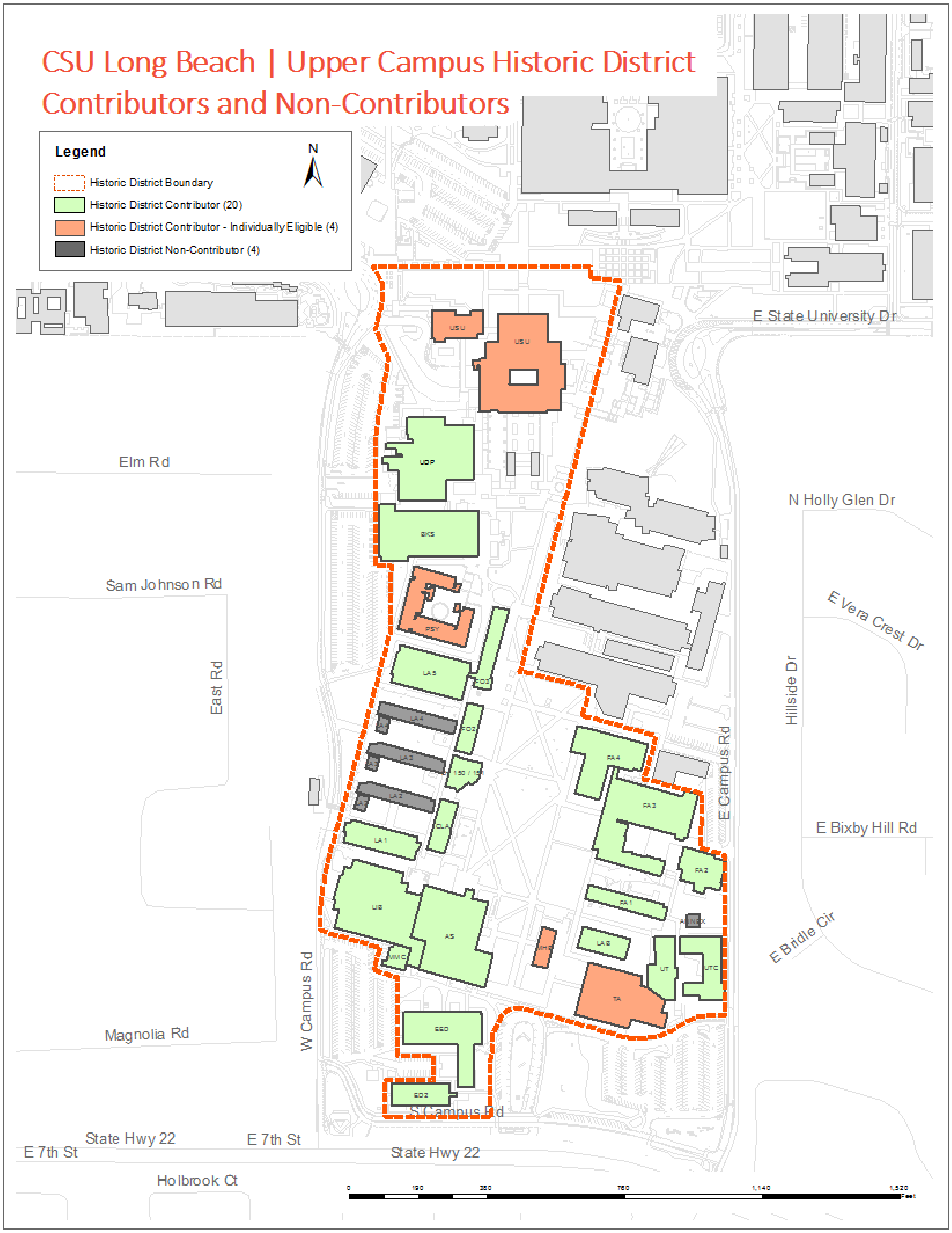
LOCATION MAP

***Resource Name or #** (Assigned by recorder) Upper Campus Historic District

***Map Name:** Location Map ***Scale:** See scale bar ***Date of Map:** 8/16/2022



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PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Academic Services (AS)

P1. Other Identifier: Library (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Academic Services (AS) building anchors the south end of the central quad, near the southern edge of the Upper Campus Historic District. The building is irregular in plan, is constructed of concrete, and is divided into two volumes: a three-story volume (north), and a one-story volume (south). The building is designed in the Mid-Century Modern style. The one-story volume was designed by architect Hugh Gibbs (1955); the three-story volume is an addition that was designed by the State Division of Architecture (1959). The building is capped by a flat roof and parapet; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. The three-story volume features full-height columns that divide its façades into multiple bays of equal width. A full-height stair shaft is appended to the north façade. Entrances generally consist of glazed metal doors, many of which are surmounted by a canopy or awning. Fenestration consists of bands of fixed and awning metal windows; windows on the one-story volume are set in a large bezeled frame and are surmounted by awnings. The west façade abuts the adjacent Library (LIB) building. A breezeway appended to the east façade is connected to the adjacent McIntosh Humanities Building (MHB).

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Academic Services/AS, view southwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1955 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐Location Map ☐Sketch Map ☒Continuation Sheet ☐Building, Structure & Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐Other (List)

***Resource Name or #** (Assigned by recorder) Academic Services (AS)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1)*:

Alterations include a three-story addition to the north façade (1959), the addition of a stair shaft to the north façade, the infill of some original doors and windows on the west façade to accommodate construction of the adjacent Library (LIB), and the addition of awnings above some windows.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Academic Services (AS) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Full-height concrete columns (three-story volume)
- Glazed metal entrance doors
- Bands of metal windows
- Bezeled window frames (one-story volume)
- Covered breezeway (east façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) Art Annex (ANNEX)

P1. Other Identifier:

***P2. Location:** Not for Publication ☒ Unrestricted *a. County Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Art Annex is located near the southeast corner of the Upper Campus Historic District. Far removed from the central quad, it occupies a peripheral site that is tucked behind the rear of the adjacent Fine Arts 1 (FA1) and University Telecommunication Center (UTC) buildings and is largely obscured from view. It is a modular structure with a compact rectangular footprint, and lacks the distinguishing characteristics of an architectural style. The building sits on an elevated foundation, and is capped by a flat roof with a slight eave. Exterior walls are clad in vertical channel siding. Ingress is provided from the south, via a single metal door that is approached by an access ramp and metal handrail. Most fenestration is confined to the north and south façades and consists of fixed metal windows. There is also one sliding metal window on the east façade. There are no decorative details of note.

The building appears to be unaltered.

The building is a non-contributor to the Upper Campus Historic District since it was constructed as a temporary structure and does not relate to any historic contexts associated with the historic district.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Art Annex/ ANNEX, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1970 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Bookstore and Forty-Niner Shops (BKS)

P1. Other Identifier: Bookstore; Forty-Niner Shops; Associated Students (historic names)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Bookstore and Forty-Niner Shops (BKS) is located near the northwest corner of the Upper Campus Historic District. The building is two stories in height, is constructed of concrete, and is rectangular in plan. The building was originally designed by architect Hugh Gibbs (1955) in the Mid-Century Modern style; it was enlarged and modified by architects Killingsworth-Brady and Associates (1966), also in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. The primary (east) façade is divided into multiple bays by squared concrete columns. The ground story is recessed behind these columns. There are multiple points of ingress, most of which consist of glazed metal doors with sidelights and transoms. Most entrances are surmounted by awnings. The east and north façades are extensively glazed with continuous bands of fixed metal windows. Decorative details are limited to signage and metal *brise soleil* (on the east façade), which project from the face of the building and are affixed to a steel structural frame.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Bookstore and Forty-Niner Shops/BKS, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1955 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Bookstore and Forty-Niner Shops (BKS)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1):*

Alterations include a large addition to the primary/east façade by architects Killingworth-Brady and Associates (1966), which occurred within the district's period of significance (1953-1972); other additions to the west and north façades; the replacement of some original doors and windows; and the addition of awnings.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Bookstore and Forty-Niner Shops (BKS):

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Recessed ground story with concrete column supports
- Glazed metal entrance doors, some with sidelights and transoms
- Bands of metal windows
- Metal *brise soleil* (east façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) College of Liberal Arts (CLA)

P1. Other Identifier: Classroom Office Wing (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The College of Liberal Arts (CLA) building, located in the west section of the Upper Campus Historic District, is one of several buildings that frame the west side of the central quad. It is a one story building that is constructed of concrete and is rectangular in plan. It was designed by architect Hugh Gibbs in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. Ingress is generally provided on the west façade and consists of single metal doors with transoms. There is also an entrance on the east façade consisting of a glazed metal door. The north and south façades consist of unarticulated brick walls. Fenestration is confined to the east and west façades and comprises bands of fixed metal windows; windows on the east façade are surmounted by a concrete slab canopy. The west façade opens onto a continuous breezeway that is connected to several adjacent buildings to the north. Decorative details are limited to signage.

Alterations include the replacement of original doors and windows.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) College of Liberal Arts/CLA, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1954 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) College of Liberal Arts (CLA)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1)*:

The following are identified as character-defining features of the College of Liberal Arts (CLA) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Bands of metal windows
- Concrete slab canopy above windows (east façade)
- Covered breezeway (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Education 2 (ED2)

P1. Other Identifier: Addition to Administration Building (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Date T ;R ; ¼ of ¼ of Sec ; B.M.
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Education 2 (ED2) building is located at the south end of the Upper Campus Historic District, with frontage on South Campus Road and East Seventh Street. This building is two stories in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete with vertical channel screeds. The north façade is spanned by a metal canopy with projecting steel "spider-leg"-style support beams. There are multiple points of ingress. The west and east façades each contain a pair of glazed metal doors. The west entrance is surmounted by a slab canopy; the east entrance is recessed, and is set beneath a full-height exterior stair shaft that is appended to the east façade. There are also several single, unarticulated metal doors on the north and south façades. Fenestration consists of bands of fixed and operable metal windows. Decorative details include Norman brick accent walls, portions of which are set in a staggered pattern that resembles breezeblocks; and signage, including applied dimensional sign letters on the south façade that spell "CALIFORNIA STATE UNIVERSITY LONG BEACH."

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Education 2/ED2, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1961 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐Location Map ☐Sketch Map ☒Continuation Sheet ☐Building, Structure & Object Record
☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐Other (List)

***Resource Name or #** (Assigned by recorder) Education 2 (ED2)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The following are identified as character-defining features of the Education 2 (ED2) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Metal canopy with projecting steel support beams (north façade)
- Glazed and solid metal entrance doors
- Bands of metal windows
- Norman brick accent walls, with bricks set in a staggered pattern
- Dimensional sign letters that spell “CALIFORNIA STATE UNIVERSITY LONG BEACH” (south façade)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Ellis Education Building (EED)

P1. Other Identifier: Administration Building (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Ellis Education Building (EED) is located at the south end of the Upper Campus Historic District. It is a one-story building with horizontal massing and an elongated, L-shaped footprint. There is also a small, "pop-up" second story volume at the center of the building that is partially visible from the east. The building was designed by the State Division of Architecture in the Mid-Century Modern style. It is constructed of concrete and capped by a flat roof and parapet. Exterior walls are finished in a Norman brick veneer and painted concrete. The north façade features a metal canopy with projecting steel "spider-leg"-style support beams. There are multiple entrances, which generally consist of glazed and solid flush-mounted metal doors. All façades are extensively glazed with bands of flush-mounted, fixed and operable metal windows. Some of the windows are shaded by louvered metal *brise soleil*. Decorative details are limited to signage.

Alterations include the replacement of some original doors and windows.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Ellis Education Building/EED, view southwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1957 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Ellis Education Building (EED)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The following are identified as character-defining features of the Ellis Education Building (EED):

- Simple, rectilinear massing
- Low-slung building profile
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Metal canopy with projecting steel support beams (north façade)
- Glazed and solid metal entrance doors
- Bands of metal windows
- Metal *brise soleil*
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) Faculty Office 2 (FO2)

P1. Other Identifier: Office Wing (historic name)

***P2. Location:** Not for Publication ☒ Unrestricted ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Faculty Office 2 (FO2) building, located in the west section of the Upper Campus Historic District, is one of several buildings that frame the west side of the central quad. This building is two stories in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof with shallow eaves; exterior walls are finished in a Norman brick veneer and painted concrete. Ingress is provided on the north and south façades and consists of paired, glazed metal doors. The north entrance is surmounted by a concrete slab canopy, and is approached by a small concrete stoop. The stoop is framed by a low concrete wall with a metal rail cap and integral benches. The east and west façades are extensively glazed with continuous bands of flush-mounted, fixed and awning metal windows. The south and west façades open onto continuous breezeways that are connected to several adjacent buildings. Decorative details are limited to signage.

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Faculty Office 2/ FO2, view southwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1957 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Faculty Office 2 (FO2)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The following are identified as character-defining features of the Faculty Office 2 (FO2) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Concrete slab canopy above entrance (north façade)
- Bands of metal windows
- Low concrete wall with metal rail cap (north façade)
- Covered breezeway (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Faculty Office 3 (FO3)

P1. Other Identifier: Classroom and Faculty Office (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Faculty Office 3 (FO3) building, located in the west section of the Upper Campus Historic District, frames the northwest corner of the central quad. It is three stories in height over a partial basement, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. The south end of the east façade is clad with small chromatic tiles. The east and west façades are divided into multiple bays by squared concrete columns. The south façade has a deeply recessed ground story that is supported by squared concrete columns. Ingress is provided on the north and south façades and consists of paired, glazed metal doors; the north façade also features a second-story entrance that is accessed by an exterior stairwell with galvanized metal rails. Fenestration is largely confined to the east and west façades and consists of bands of fixed and awning metal windows; thin slab canopies cantilever out over the west-facing windows. There is also a band of metal windows on the south façade, which is in turn surmounted by a cantilevered concrete canopy. On the west façade, an upper-story projection allows unfettered internal circulation between this building and the adjacent Liberal Arts 5 (LA5) building to the west. A mural (“Sun Forces,” Rita Letendre) is painted on the north face of this upper-story projection. Other decorative details are nominal and are limited to signage.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Faculty Office 3/ FO3, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1959 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

Primary #
HRI

***Resource Name or #** (Assigned by recorder) Faculty Office 3 (FO3)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1):*

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Faculty Office 3 (FO3) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Chromatic tile accents (east façade)
- Full-height concrete columns
- Bands of metal windows
- Thin slab canopies over windows (south and west façades)
- Painted mural (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Fine Arts 1 (FA1)

P1. Other Identifier: Fine Arts Wing 1 (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Fine Arts 1 (FA1) building, located in the east section of the Upper Campus Historic District, is one of several buildings that frame the east side of the central quad. The building is two stories in height, is constructed of concrete, and has an elongated, rectangular plan. It was designed by architect Hugh Gibbs in the Mid-Century Modern style. The building is capped by a flat roof with a parapet and shallow eaves; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. There are multiple entrances, which generally consist of glazed metal doors. The north and south façades feature bands of fixed and awning metal windows. The west façade opens onto a continuous breezeway that is connected to adjacent buildings to the north and south. Decorative details are limited to signage.

Interior spaces consist primarily of offices and studios. Primary spaces include small entrance/stair lobbies with concrete floors and brick and plaster walls; concrete steps with metal handrails; and double-loaded corridors flanked by solid wood doors.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Fine Arts 1/FA1, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1954 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Fine Arts 1 (FA1)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

Alterations include the replacement of original doors and windows.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Fine Arts 1 (FA1) building:

- Simple, rectilinear massing
- Flat roof with shallow eaves
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Bands of metal windows
- Covered breezeway (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Fine Arts 2 (FA2)

P1. Other Identifier: Fine Arts Wing 2 (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Fine Arts 2 (FA2) building, located in the east section of the Upper Campus Historic District, is one of several buildings that frame the east side of the central quad. This building is constructed of concrete and has an irregular plan comprising two volumes: a long, narrow volume (west) and a larger rectilinear volume (east). While the building generally reads as two stories, it features a partial "pop-up" third story that is partially obscured from view. The building was designed by architect Hugh Gibbs in the Mid-Century Modern style. It is capped by a flat roof and parapet; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. The primary entrance faces west and comprises paired, glazed metal doors with a fixed sidelight and transom. There are also multiple secondary entrances. Fenestration consists of bands of fixed and awning metal windows. Most windows on the rear (east) volume of the building are surmounted by thin slab canopies that function as sunscreens. Appended to the east façade is a semi-enclosed addition with pyramidal roofs and cinder block walls; appended to the northwest corner of the building is a canopy with a monitor roof and metal-and-cinder-block supports. The west façade opens onto a continuous breezeway that is connected to several adjacent buildings. Decorative details are limited to signage.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Fine Arts 2/FA2, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1954 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***P3a. Description** *(continued from page 1):*

Interior spaces consist primarily of offices and studios. Primary spaces include small entrance/stair lobbies with concrete floors and brick and plaster walls; concrete steps with metal handrails; and double-loaded corridors flanked by solid wood doors.

Alterations include the replacement of original doors and windows; an addition to the east façade; and the addition of a canopy to the northwest corner of the building.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Fine Arts 2 (FA2) building:

- Simple, rectilinear massing
- Flat roof with shallow eaves
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Bands of metal windows
- Thin slab canopies above windows (east volume)
- Covered breezeway (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Fine Arts 3 (FA3)

P1. Other Identifier: Fine Arts Wing 3 (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Fine Arts 3 (FA3) building, located in the east section of the Upper Campus Historic District, is one of several adjacent buildings that frame the east side of the central quad. This building is one story in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. The primary entrance is located at the southwest corner of the building and is oriented to the south. It comprises three pairs of glazed metal doors. There are also multiple secondary entrances. The north and south façades are extensively glazed with bands of fixed and operable metal windows. Adjacent to the northeast corner of the building is a utility yard that is sheltered by a corrugated metal shed roof. Appended to the southwest corner of the building is a canopy with a monitor roof and metal-and-cinder block supports; the canopy is appended to the adjacent Fine Arts 2 (FA2) building. There are also cinder block accent walls along the south façade. The west façade opens onto a continuous breezeway that is connected to several adjacent buildings to the south. Decorative details are limited to signage.

Alterations include the replacement of original doors and windows; the addition of a canopy to the southwest corner of the building; and the addition of cinder block accent walls to the south façade.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Fine Arts 3/FA3, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1958 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

CONTINUATION SHEET

***Resource Name or #** (Assigned by recorder) Fine Arts 3 (FA3)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Fine Arts 3 (FA3) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Bands of metal windows
- Covered breezeway (east façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) Fine Arts 4 (FA4)

P1. Other Identifier: Fine Arts Building and Ceramics Addition (historic name)

***P2. Location:** Not for Publication ☒ Unrestricted ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Date T ;R ; ¼ of ¼ of Sec ; B.M.
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Fine Arts 4 (FA4) building, located in the east section of the Upper Campus Historic District, is one of several buildings that frame the east side of the central quad. This building varies between two and three stories in height, is constructed of concrete, and is irregular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in painted concrete and a Norman brick veneer. The north and south façades feature curtain wall systems with alternating bands of sliding metal windows and painted metal spandrel panels. The west façade features a recessed ground story, which is supported by concrete columns with decorative geometric insets and tile accents. Set within this recess are multiple entrances comprising single, glazed metal doors. There is also a recessed entrance on the east façade consisting of glazed metal doors. The east entrance is surmounted by a concrete slab canopy that is supported by two decorative concrete columns. Fenestration consists of continuous bands of metal windows. Windows on the south and east façades are shaded by metal *brise soleil*. Decorative details include a painted mural on the south façade ("White City," Terry Schoonhoven), as well as signage. There are also subtle details that are integrated into the face of the building like extrusions in the brick veneer and score lines in the exterior concrete, providing these otherwise monolithic surfaces with a sense of dimension and texture.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Fine Arts 4/FA4, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1962 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐Location Map ☐Sketch Map ☒Continuation Sheet ☐Building, Structure & Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐Other (List)

***Resource Name or #** (Assigned by recorder) Fine Arts 4 (FA4)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

Interior spaces consist primarily of offices and studios. Primary spaces include small entrance/stair lobbies with vinyl composition tile (VCT) floors and brick and plaster walls; concrete steps with metal handrails; and double-loaded corridors flanked by solid wood doors.

Alterations include the replacement of original doors.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Fine Arts (FA4) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Recessed ground story (west façade)
- Concrete columns with decorative insets (west and east façades)
- Glazed metal entrance doors
- Bands of metal windows and metal spandrel panels (north and south façades)
- Metal *brise soleil*
- Subtle details including extrusions in brick surfaces and score lines incised into concrete surfaces
- Painted mural (south façade)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code **Reviewer** **Date**

***Resource Name or #** (Assigned by recorder) Language Arts Building (LAB)

P1. Other Identifier: Language Arts Classroom Building (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Language Arts Building (LAB), which is located near the south end of the Upper Campus Historic District, frames the southeast corner of the central quad. This building is two stories in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer. Full-height concrete columns, spaced at regular intervals, divide the north and south façades into multiple bays of equal width. Ingress is provided on the south, east, and west façades via glazed metal doors. The west entrance opens onto a continuous breezeway that is connected to adjacent buildings to the north and west. There are few windows; fenestration consists of fixed metal windows, all of which are set in tall, narrow channels that span the full height of the building. Decorative details are limited to signage.

Interior spaces consist primarily of offices and studios. Primary spaces include small entrance/stair lobbies with vinyl composition tile (VCT) floors and plaster walls; concrete steps with metal handrails; and double-loaded corridors flanked by solid wood doors.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Language Arts Building/LAB, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1967 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record
☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record
☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Language Arts Building (LAB)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Language Arts Building (LAB):

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick
- Full-height concrete columns
- Glazed metal entrance doors
- Tall, narrow fixed metal windows that span the height of the building
- Minimal fenestration
- Covered breezeway (west façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Lecture Hall 150-151 (LH)

P1. Other Identifier: Classroom Building Addition (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Lecture Hall 150-151 (LH) is located in the west section of the Upper Campus Historic District, and is one of several buildings that frame the west side of the central quad. This building is one story in height, is constructed of concrete, and is irregular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer. The primary entrance is located on the east façade and is oriented at an angle. It comprises two pairs of glazed metal doors that are slightly recessed. Several secondary entrances are found on the west façade and consist of single, flush-mounted metal doors with vision panels. There are no windows on the building. The west façade opens onto a continuous breezeway that is connected to adjacent buildings to the north and south. Decorative details are minimal and include signage, and a large metal sculpture ("Hollow Man," Tenhold Peterson, 1964) that is affixed to the east façade.

Primary interior spaces include small entrance lobbies at the northeast and southeast corners of the building; and a large, open auditorium with rubber flooring and stadium-style plastic seats.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Lecture Hall 150-151/LH, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1955 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Lecture Hall 150-151 (LH)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

Alterations include the replacement of original doors.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of Lecture Hall 150-151 (LH):

- Irregular massing
- Flat roof
- Exterior walls clad in Norman brick
- Angled primary entrance (east façade)
- Glazed metal entrance doors
- Solid exterior walls that lack windows
- Covered breezeway (west façade)
- Wall-mounted metal sculpture (east façade)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Liberal Arts 1 (LA1)

P1. Other Identifier: Classroom Building 5; Audio-Visual Center (historic names)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Liberal Arts 1 (LA1) building flanks the west edge of the Upper Campus Historic District. The subject building is three stories in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in painted concrete. The concrete walls on the east and west façades are incised with score lines. Full-height concrete columns divide the north and south façades into multiple bays of equal width. There are multiple entrances, most of which consist of single metal doors; some of the doors are glazed while others are solid. There are upper-story entrances on the east and west façades, which are accessed by cantilevered exterior stairwells with metal handrails. Fenestration is limited to the north and south facades, and consists of horizontal bands of flush-mounted, fixed and awning metal windows. Decorative details include signage, and metal *brise soleil* that surmount all south-facing windows.

Alterations include the replacement of original doors.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Liberal Arts 1/ LA1, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1962 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Liberal Arts 1 (LA1)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The following are identified as character-defining features of the Liberal Arts 1 (LA1) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in painted, scored concrete
- Full-height concrete columns (north, south façades)
- Glazed and solid metal entrance doors
- Cantilevered exterior stairwells with metal handrails
- Bands of metal windows
- Metal *brise soleil*
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) Liberal Arts 2 (LA2)

P1. Other Identifier: Classroom Wing 1 (historic name)

***P2. Location:** Not for Publication ☒ Unrestricted *a. County Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Liberal Arts 2 (LA2) building flanks the west edge of the Upper Campus Historic District. This building varies between one and two stories in height, is constructed of concrete, and is L-shaped in plan. The subject building was designed by architect Hugh Gibbs in the Mid-Century Modern style. It is capped by a flat roof with wide eaves; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. There are multiple entrances, all of which are located on the south façade. Each entrance consists of a single metal door with a vision panel. Upper-story spaces are accessed via an exterior corridor that cantilevers out over the south façade; the corridor features a metal handrail, and is accessed by exterior stairs on the east and west façades. Fenestration consists of metal clerestory windows on the south façade, and bands of metal windows on the north façade with both fixed and operable sashes. Decorative details are minimal and are limited to signage.

This building, along with LA3 and LA4, underwent an extensive renovation that was completed in 2015. Alterations include the replacement of original doors and windows, infill of original doors, modification of original fenestration patterns, and replacement of original railings. The building retains its essential form, but many of its character-defining features have been modified and removed.

The building is a non-contributor to the Upper Campus Historic District due to extensive alterations and a loss of integrity.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Liberal Arts 2/ LA2, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1954 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 6Z

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Liberal Arts 3 (LA3)

P1. Other Identifier: Classroom Wing 2 (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Liberal Arts 3 (LA3) building flanks the west edge of the Upper Campus Historic District. This building varies between one and two stories in height, is constructed of concrete, and is L-shaped in plan. The building was designed by architect Hugh Gibbs in the Mid-Century Modern style. It is capped by a flat roof with wide eaves; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. There are multiple entrances, all of which are located on the south façade. Each entrance consists of a single metal door with a vision panel. Upper-story spaces are accessed via an exterior corridor that cantilevers out over the south façade; the corridor features a metal handrail, and is accessed by exterior stairs on the east and west façades. Fenestration consists of metal clerestory windows on the south façade, and bands of metal windows on the north façade with both fixed and operable sashes. Decorative details are limited to signage.

This building, along with LA2 and LA4, underwent an extensive renovation that was completed in 2015. Alterations include the replacement of original doors and windows, infill of original doors, modification of original fenestration patterns, and replacement of original railings. The building retains its essential form, but many of its character-defining features have been modified and removed.

The building is a non-contributor to the Upper Campus Historic District due to extensive alterations and a loss of integrity.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Liberal Arts 3/ LA3, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1954 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Liberal Arts 4 (LA4)

P1. Other Identifier: Classroom Wing 3 (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Liberal Arts 4 (LA4) building flanks the west edge of the Upper Campus Historic District. This building varies between one and two stories in height, is constructed of concrete, and is L-shaped in plan. The building was designed by architect Hugh Gibbs in the Mid-Century Modern style. It is capped by a flat roof with wide eaves; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. There are multiple entrances, all of which are located on the south façade. Each entrance consists of a single metal door with a vision panel. Upper-story spaces are accessed via an exterior corridor that cantilevers out over the south façade; the corridor features a metal handrail, and is accessed by exterior stairs on the east and west façades. Fenestration consists of metal clerestory windows on the south façade, and bands of metal windows on the north façade with both fixed and operable sashes. Decorative details are minimal and are limited to signage.

This building, along with LA2 and LA3, underwent an extensive renovation that was completed in early 2015. Alterations include the replacement of original doors and windows, infill of original doors, modification of original fenestration patterns, and replacement of original railings. The building retains its essential form, but many of its character-defining features have been modified and removed.

The building is a non-contributor to the Upper Campus Historic District due to extensive alterations and a loss of integrity.

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Liberal Arts 4/ LA4, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1955 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # ______
HRI ______
Trinomial # ______
NRHP Status Code 3D; 3CD
Other Listings ______
Review Code ______ Reviewer ______ Date ______

***Resource Name or #** (Assigned by recorder) Liberal Arts 5 (LA5)

P1. Other Identifier: Classroom and Faculty Office (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** ______ **Date** ______ **T** ______ **;R** ______ ; ______ **¼of** ______ **¼ of Sec** ______ ; ______ **B.M.**
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ______ ; ______ mE/ ______ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) ______

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Liberal Arts 5 (LA5) building flanks the west edge of the Upper Campus Historic District. This building is three stories in height, is constructed of concrete, and is rectangular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer. Slender, full-height concrete columns divide each façade into multiple bays of equal width. There are multiple points of ingress, each of which is recessed and consists of glazed metal doors. All façades are extensively glazed with bands of fixed and awning metal windows. Windows and doors on the south and west façades are surmounted by concrete slab hoods. Decorative details are minimal and are limited to signage.

Interior spaces consist primarily of offices and classrooms. Primary spaces include small entrance/stair lobbies with viny composition tile (VCT) floors and plaster walls; concrete stair corridors with metal handrails; and double-loaded corridors flanked by solid wood doors and finished in VCT flooring.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Liberal Arts 5/ LA5, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1959 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List) ______

***Resource Name or #** (Assigned by recorder) Liberal Arts 5 (LA5)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Liberal Arts 5 (LA5) building:

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick
- Slender, full-height concrete columns
- Glazed metal entrance doors
- Bands of metal windows
- Slab hoods above doors and windows (south and west façades)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Library (LIB)

P1. Other Identifier: Library West Wing Addition (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Library (LIB) is located at the southwest corner of the Upper Campus Historic District. This building is five stories in height with an exposed basement, is constructed of concrete, and is irregular in plan. Its east façade abuts the Academic Services (AS) building. The building was designed by Joint Venture Architects (Arthur Froehlich, Clinton Ternstrom, and Robert Skinner) in the New Formalist style, and exhibits a strong vertical orientation and heavy massing. It is capped by a flat roof and parapet, portions of which are spanned by a wide eave; exterior walls are finished in a Norman brick veneer and painted concrete. Full-height concrete fins divide the north and south façades into multiple bays of equal width. The primary entrance is located at the far east end of the north façade; it is extensively glazed and comprises pairs of glazed metal doors. This entrance is surmounted by a metal canopy supported by slender metal columns. Fenestration generally consists of fixed, flush-mounted metal windows. The base of the north façade is spanned by an oblique row of skylights. Decorative details include signage, and a concrete *brise soleil* that spans the full height of the east façade.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Library/LIB, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1971 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

Primary #
HRI

***Resource Name or #** (Assigned by recorder) Library (LIB)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

Alterations include the replacement of original windows; modification of the primary entrance, which involved partial infill of an exposed basement level and addition of the existing metal canopy structure over the entrance; the addition of skylights to the base of the north façade; and a full-height addition to the rear (south) façade. Most of these alterations appear to have been associated with a multi-phased renovation project that was completed in 2008.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the Library (LIB):

- Vertical orientation
- Irregular massing comprising multiple building volumes
- Flat roof with wide eaves
- Exterior walls clad in Norman brick and painted concrete
- Full-height concrete fins
- Extensively glazed primary entrance (north façade)
- Fixed metal windows, most of which are set in tall, narrow vertical channels
- Concrete *brise soleil* (east façade)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B; 3CB

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)

P1. Other Identifier: Humanities Office Building (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The McIntosh Humanities Building (MHB) anchors the south end of the Upper Campus Historic District. This building is constructed of concrete, has a compact rectangular plan, and sits on a shallow plinth. At nine stories in height, it is considerably taller than most other campus buildings. The building was designed by the State Division of Architecture in the Mid-Century Modern style. It is capped by a flat roof; exterior walls are finished in a Norman brick veneer and painted concrete. Its ground story is set far back behind squared concrete columns, and is transected by a breezeway that doubles as the building's main point of ingress. There are two entrances within this transect, each consisting of a single glazed metal door, sidelights, and transom. Fenestration is confined to the east and west façades, and consists of alternating bands of sliding metal windows and spandrel panels set within a modular grid. All of the windows are shaded by metal *brise soleil*. Along the base of the south, west, and east façades is a shallow reflecting pool, and installed within the reflecting pool is a metal sculpture ("U as a Set," Clare Falkenstein). Other exterior details are limited to signage.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) McIntosh Humanities Building/MHB, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1967 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

Primary #
HRI

***Resource Name or #** (Assigned by recorder) McIntosh Humanities Building (MHB)
Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 2):**

The interior consists primarily of offices. The ground story features a small stair/elevator vestibule with terrazzo floors. The upper stories consist of double-loaded corridors with vinyl composition tile (VCT) floors, acoustic tile ceilings, and solid wood office doors.

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District. It also appears to be individually eligible for listing in the National Register and California Register.

The following have been identified as character-defining features of the McIntosh Humanities Building:

- Compact, rectangular plan
- Building set on a shallow plinth with concrete steps
- Recessed ground story with squared concrete column supports
- Open breezeway through the ground story
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Flush-mounted aluminum windows and metal spandrel panels (east, west façades)
- Metal *brise soleil* (east, west façades)
- Lack of surface ornament and decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Multi-Media Center (MMC)

P1. Other Identifier: Multi-Media Building (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** **Date** **T** **;R** **;** **¼of** **¼ of Sec** **;** **B.M.**
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Multi-Media Center (MMC) is a small building that is located to the immediate south of the Library (LIB). This building is one story in height, is constructed of concrete, and is roughly rectangular in plan. It was built at the same time as the adjacent library and was originally a detached building; however, as the result of an addition that was appended to the library's south façade, the subject building now reads as an extension of the adjacent library. This building was designed by Joint Venture Architects (Arthur Froelich, Clinton Ternstrom, and Robert Skinner) in a vernacular interpretation of the New Formalist style. The building exhibits heavy massing and is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. Ingress is provided on the east and west façades via glazed metal doors. The west entrance is approached by a concrete footbridge with metal handrails, which provides pedestrian passage over an exposed, sunken basement level. There are few windows on the building; fenestration consists of fixed, full-height metal windows that are set within tall, narrow vertical channels. Decorative details are limited to signage.

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Multi-Media Center/MMC, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1971 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

Primary #
HRI

***Resource Name or #** (Assigned by recorder) Multi-Media Center (MMC)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The following are identified as character-defining features of the Multi-Media Center (MMC):

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Concrete footbridge with metal rail (west façade)
- Glazed metal entrance doors
- Fixed metal windows that are set in tall, narrow vertical channels
- Minimal fenestration
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B; 3CB
Other Listings
Review Code Reviewer Date

Page 1 of 2

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

P1. Other Identifier:

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Psychology Building (PSY) is located near the center of the Upper Campus Historic District and along the district's western edge. The building is three stories in height and is constructed of concrete. It was designed by architects Hugh and Donald Gibbs (Gibbs and Gibbs) in the Mid-Century Modern style. The building features asymmetrical massing and an irregular plan that is oriented inward around a central courtyard. It is capped by a flat roof and parapet. Most exterior walls are finished in a Norman brick veneer; at the northeast corner of the building, as well as in the courtyard, are three full-height stair shafts composed of deeply incised concrete panels. Façades that face inward toward the courtyard feature glass curtain wall systems. The ground stories of these façades are set back behind indented concrete columns. Each floor is spanned by an exterior corridor, with a handrail system comprising glazed panels and metal caps. Elsewhere on the building, fenestration consists of fixed metal windows set in tall, narrow recessed openings. There are multiple points of ingress, most of which open into the courtyard and consist of single metal doors. Decorative details are limited to signage. The courtyard features hued pavers, integral concrete benches, and a sunken planter with mature eucalyptus trees.

Alterations include the replacement of original pavers within the courtyard, and an in-kind replacement of the glass curtain wall system within the courtyard.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Psychology Building/PSY, view southwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1970 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) Psychology Building (PSY)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1)*:

The building is a contributor to the Upper Campus Historic District. It also appears to be individually eligible for listing in the National Register and California Register.

The following have been identified as character-defining features of the Psychology Building (PSY):

- Asymmetrical massing
- Irregular plan, oriented around a central courtyard
- Flat roof
- Exterior walls clad in Norman brick
- Full-height vertical stair shafts comprising vertically incised concrete panels
- Indented concrete columns (within courtyard)
- Exterior corridors with glass-and-metal handrails
- Glazed and solid metal entrance doors
- Tall, narrow fixed metal windows
- Glass curtain walls (within courtyard)
- Monolithic brick walls with minimal fenestration (outer building perimeter)
- Hued pavers (within courtyard)
- Sunken circular planters (within courtyard)
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B; 3CB

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

P1. Other Identifier: Drama Building, Studio Theater (historic names)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** **Date** **T** **;R** ; **¼of** **¼ of Sec** ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Theatre Arts (TA) building occupies a prominent site near the southeast corner of the Upper Campus Historic District. It is a one-story building with double-height interior spaces. It is constructed of concrete and is composed of two volumes: a symmetrical, rectangular volume at the front (west) of the building, and an asymmetrical volume at the rear (east) that is adjoined to the adjacent University Theater (UT) building. The west volume has a monumental presence and is the public face of the building. The building was designed by the architectural firm of Frank Homolka and Associates in the New Formalist style. Most of the building is capped by a flat roof with a wide eave; this eave is supported by slender full-height concrete columns that form an abstracted colonnade along the west, north, and south façades. Exterior walls are finished in a Norman brick veneer; walls on the east face of the building are largely obscured by vines but appear to consist of painted concrete. The west façade is extensively glazed with fixed, full-height metal windows. Set within this window system are multiple entrances, each comprising paired, glazed metal doors. There are additional entrances on the side (north and south) façades, which also consist of glazed metal doors. Decorative details are limited to signage.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP10. Theater; HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) Theatre Arts/TA, view northeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1972 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 12/6/2019

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐Location Map ☐Sketch Map ☐Continuation Sheet ☐Building, Structure & Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐Other (List)

***Resource Name or #** (Assigned by recorder) Theatre Arts (TA)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1):*

Primary interior spaces include a narrow full-height lobby with quarry tile floors and a mezzanine with metal handrails; and a full-height auditorium with raked floors and stadium-style seats.

The building appears to be unaltered.

The following are identified as character-defining features of the Theatre Arts (TA) building:

- Symmetrical façades (west, north, south)
- Flat roof with wide eaves
- Slender concrete column supports that form an abstracted colonnade
- Exterior walls clad in Norman brick and painted concrete
- Extensive glazing comprising fixed, floor-to-ceiling metal windows and glazed doors (west façade)
- Double-height lobby with quarry tile floors, mezzanine, and metal handrails (interior)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) University Dining Plaza (UDP)

P1. Other Identifier: Cafeteria (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; B.M.

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The University Dining Plaza (UDP) flanks the west edge of the Upper Campus Historic District and is located to the north of the adjacent Bookstore (BKS). The subject building is one story in height with a partial basement, is constructed of concrete, and is irregular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. Its primary (east) façade is divided into multiple bays by projecting concrete fins, and has three sets of glazed metal doors with fixed transoms and sidelights. A wood trellis structure with squared wood post supports extends across the east and south façades. There are multiple secondary entrances; one entrance on the west façade is surmounted by an awning. Fenestration generally consists of fixed, flush mounted metal windows. At the southeast corner of the building is an exterior patio capped by an overhead wood trellis. The west façade is relatively utilitarian in appearance, and features loading docks and utility doors. Decorative details are minimal and are limited to signage.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) University Dining Plaza/UDP, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1957 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) University Dining Plaza (UDP)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

Alterations include the replacement of some original doors and windows; an addition to the rear (west) façade; an addition to the south façade; the addition of wood trellises (south, east façades), and the addition of an awning above an entrance (west façade).

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the University Dining Plaza (UDP):

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Projecting concrete fins (east façade)
- Glazed metal entrance doors with transoms and sidelights
- Fixed metal windows
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3B; 3CB
Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

P1. Other Identifier: The College Union (historic name)

***P2. Location:** **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** ______ **Date** ______ **T** ______ **;R** ___;___ **¼of** ______ **¼ of Sec** ___;___ **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ______ ; ______ mE/ ______ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The University Student Union (USU) anchors the north end of the Upper Campus Historic District. Integrated into the slope of a gentle hill that divides the campus between north and south, this building is three stories tall, is built of concrete, and has an irregular plan that responds to the varied topography of the site. It was designed by the architectural firm of Killingsworth-Brady and Associates in the Mid-Century Modern style. The building is characterized by its overt structural expression and its overtures to the post-and-beam method of construction. It is capped by a flat roof with a wide eave and exposed concrete beams. Exterior walls generally consist of painted concrete, though portions are finished in a Norman brick veneer. The north façade is deeply recessed and sits behind full-height concrete columns. There are multiple points of ingress, most of which consist of glazed metal doors. Some of the entrances are located on upper levels and accessed via exterior stairs. The south façade is approached by a paved forecourt that sits partially below grade. Fenestration consists of fixed metal windows. Decorative details are limited to awnings and signage. The west volume of the building is an addition (1998) that was designed to emulate the form and appearance of the original building.

Interior spaces vary widely. The ground floor has a large vestibule which serves as the main point of ingress from the north and has quarry tile floors and suspended ceilings. This vestibule leads to student recreational and amenity spaces including a bowling alley,

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) University Student Union/USU, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1972 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 12/6/2019

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Campus-Wide Historic Resources Survey Report (ARG, 2019)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) University Student Union (USU)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 2):*

billiard room, pool, auditorium, offices, and conference rooms and lounges. Most of the ground floor interior spaces appear to have been altered. The second floor has a double-height lobby that serves as the main point of ingress from the north and west. The lobby has quarry tile floors and exposed concrete beam ceilings. It feeds into a continuous corridor that wraps around the perimeter of the second floor and opens onto dining facilities, conference rooms, and offices, most of which also appear to have been altered. The third floor consists of offices and conference rooms, which generally have carpeted floors and suspended ceilings.

Alterations include replacement of some original doors, and an addition to the west elevation (1998) that was completed by original architect (and campus consulting architect) Edward Killingsworth (through his firm Killingsworth, Stricker, Lindgren, Wilson and Associates). The addition is known as the "West Wing and Third Floor Addition."

The building is a contributor to the Upper Campus Historic District. It also appears to be individually eligible for listing in the National Register and California Register.

The following have been identified as character-defining features of the McIntosh Humanities Building (MHB):

- Compact, rectangular plan
- Building set on a shallow plinth with concrete steps
- Recessed ground story with squared concrete column supports
- Open breezeway through the ground story
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Flush-mounted aluminum windows and metal spandrel panels (east, west façades)
- Metal *brise soleil* (east, west façades)
- Lack of surface ornament and decorative details

No interior character-defining features were identified since primary interior spaces are utilitarian and do not contribute to the architectural significance of the building.

Character-Defining Features

The following have been identified as character-defining features of the University Student Union (USU):

- Irregular plan
- Level changes that correspond to the topography of the site
- Exposed concrete structural system comprising painted concrete posts and beams
- Flat roof with wide eaves
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal doors
- Fixed metal windows
- Courtyard with quarry tile flooring and concrete planter beds (center of building)
- Cantilevered stairs with quarry tile treads and metal handrails (within courtyard)
- Entrance vestibule with quarry tile floors (interior, first floor)
- Double-height lobby with quarry tile floors and exposed concrete beam ceilings (interior, second floor)

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD

Other Listings
Review Code Reviewer Date

***Resource Name or #** (Assigned by recorder) University Telecommunication Center (UTC)

P1. Other Identifier: Music Building (historic name)

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted** ***a. County** Los Angeles

and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Date T ;R ; ¼of ¼ of Sec ; **B.M.**

c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840

d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The University Telecommunications Center (UTC) is located at the southeast corner of the Upper Campus Historic District. The building varies between one and two stories in height, is constructed of concrete, and is irregular in plan. It was designed by the State Division of Architecture in the Mid-Century Modern style. The building is capped by a flat roof and parapet; mechanical equipment on the roof is obscured by metal decking. Exterior walls are finished in a Norman brick veneer and painted concrete. There are two primary entrances: one on the west façade, and another on the east façade. Both consist of paired, glazed metal doors. There are also multiple secondary entrances. The east entrance is slightly elevated, and is accessed by concrete steps with metal handrails. It is surmounted by a canopy that appears to have originally sheltered a loading dock. A section of this former loading dock has been infilled. Fenestration is limited to the east and west façades and consists of bands of fixed and awning metal windows. Other exterior surfaces on the building consists of unarticulated walls. Decorative details are minimal and are limited to signage.

Alterations include the partial infill of a former loading dock on the east façade, the replacement of original doors, and the infill of some original door and window openings on the north façade.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐ Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) University Telecommunication Center/UTC, view northwest (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1958 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure & Object Record ☐Archaeological Record ☐ District Record ☐Linear Feature Record ☐ Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐ Other (List)

***Resource Name or #** (Assigned by recorder) University Telecommunication Center (UTC)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

***P3a. Description** *(continued from page 1)*:

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the University Telecommunication Center (UTC):

- Simple, rectilinear massing
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Glazed metal entrance doors
- Bands of metal windows
- Minimal fenestration
- Lack of surface ornament or decorative details

State of California--- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI
Trinomial #
NRHP Status Code 3D; 3CD
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) University Theatre (UT)

P1. Other Identifier: Little Theater (historic name)

***P2. Location:** Not for Publication ☒ Unrestricted *a. County Los Angeles
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Date T ;R ; ¼ of ¼ of Sec ; B.M.
c. Address 1250 N. Bellflower Boulevard City Long Beach Zip 90840
d. UTM: (Give more than one for large and/or linear resources) Zone ; mE/ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The University Theatre (UT) is located near the southeast corner of the Upper Campus Historic District. It sits between the adjacent Theatre Arts (TA), Language Arts (LA), Fine Arts 1 (FA1), and University Telecommunication Center (UTC) buildings. This building comprises multiple volumes, but is generally two stories in height. It is constructed of concrete and has an irregular plan; its south-facing walls are appended to the adjacent Theatre Arts (TA) building. The building was designed by architect Hugh Gibbs in the Mid-Century Modern style. It is capped by a flat roof and parapet; exterior walls are finished in a Norman brick veneer and painted concrete. The primary façade faces north, and features a large canopy that is oriented obliquely and incorporated into a network of adjacent breezeways. The primary entrance is set beneath this canopy and consists of paired, glazed metal doors that are surmounted by a fixed metal transom. Multiple secondary entrances are located on other façades. The building contains few windows. Fenestration is limited to the east façade, and consists of bands of fixed and awning metal windows. Decorative details are limited to signage.

The interior consists of a lobby and auditorium. The auditorium is a narrow space that features plaster walls and carpeted floors. The auditorium is a large, open space with raked floors and plastic stadium-style seats.

(continued on page 2)

***P3b. Resource Attributes:** (List attributes and codes) HP10. Theater; HP15. Educational Building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.):

*P5a. Photograph or Drawing (Photograph required for buildings, structures or objects)

P5b. Description of Photo: (view, date, accession #) University Theatre/UT, view southeast (ARG, 2019)

***P6. Date Constructed/Age and Sources:** ☒Historic ☐Prehistoric ☐Both
1955 (CSULB Office of Physical Planning and Sustainability)

***P7. Owner and Address:**
The California State University
401 Golden Shore
Long Beach, CA 90802

***P8. Recorded by:** Name, affiliation, and address)
Andrew Goodrich, AICP
Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

***P9. Date Recorded:** 8/16/2022

***P10. Survey Type:** (Describe)
☒ Intensive
☐ Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") California State University, Long Beach Master Plan Update, Historical Resources Technical Report (ARG, 2022)

***Attachments:** NONE ☐Location Map ☐Sketch Map ☒Continuation Sheet ☐Building, Structure & Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photographic Record ☐Other (List)

***Resource Name or #** (Assigned by recorder) University Theatre (UT)

Recorded By: Architectural Resources Group **Date:** 8/16/2022 ☒ Continuation ☐ Update

P3a. Description** *(continued from page 1):**

The building appears to be unaltered.

The building is a contributor to the Upper Campus Historic District.

The following are identified as character-defining features of the University Theatre (UT):

- Irregular massing comprising multiple building volumes
- Flat roof
- Exterior walls clad in Norman brick and painted concrete
- Oblique entrance canopy (north façade)
- Glazed metal entrance doors with metal transom
- Bands of metal windows (east façade)
- Minimal fenestration
- Covered breezeways (north, west, and east façades)
- Lack of surface ornament or decorative details

Appendix B. Campus-Wide Historic Resources Survey






California State University, Long Beach
Campus-Wide Historic Resources Survey Report

Prepared for:

California State University, Long Beach | Office of Physical Planning and Sustainability
1331 Palo Verde Avenue
Long Beach, CA 90840

Prepared by:

Architectural Resources Group
360 E. 2nd Street, Suite 225
Los Angeles, CA 90012

December 6, 2019

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1. Introduction

1.1. Executive Summary

In July 2019, Architectural Resources Group (ARG) was retained by the California State University, Long Beach (CSU Long Beach) Office of Physical Planning and Sustainability to conduct an intensive-level historic resources survey of the CSU Long Beach campus. The campus occupies a 322-acre site on the eastern flank of Long Beach and comprises more than 80 permanent buildings and structures, an assemblage of site and landscape features, and a notable collection of sculpture and public art. Founded in 1949, CSU Long Beach began to assume its present-day physical character amid a period of remarkable growth in the 1950s and 1960s, most of which occurred under the auspices of two successive campus master plans. At present, CSU Long Beach is the third-largest campus in the California State University (CSU) system with respect to enrollment, with more than 36,000 enrolled students.[1]

The scope of this project builds upon an existing historic context statement for the campus that was prepared in June 2019 (Dudek, *Campus-Wide Historic Context for California State University, Long Beach*).[2] The historic context statement provides a detailed narrative history of the CSU Long Beach campus. ARG identified significant contexts and themes addressed in the historic context statement and developed eligibility standards and integrity thresholds for each context/theme to devise a consistent, systematic method of identifying and evaluating potential historic resources. Applying this evaluative framework, ARG then conducted an intensive-level historic resources survey of the campus in which all elements of its built environment were evaluated against eligibility criteria for the National Register of Historic Places (National Register) and the California Register of Historical Resources (California Register). The survey evaluated built resources on campus that were constructed through the year 1980.

This project was initiated as many of the buildings and site features on campus have reached, or are approaching, 50 years of age. Findings from the survey are intended to help inform current and future planning decisions by identifying areas of opportunity and constraint related to historic resources on campus. The survey findings are intended to help guide a forthcoming update of the Campus Master Plan, a long-range planning document that "provides a framework for land use, open space, development and circulation" and functions as a blueprint for future campus growth and development.[3]

In summary, the survey identified two eligible historic districts and four individually eligible buildings. Resources that are determined eligible for the National Register and/or California Register in this survey are considered to be "historical resources" for purposes of the California Environmental Quality Act (CEQA), under Section 15064.5 of the CEQA Guidelines. This report includes a description of project methodology; a summary of historic contexts and themes, and the associated eligibility standards and integrity thresholds that were developed for each context/theme; and a summary of survey findings.

[1] The California State University, "2019 Fact Book," 2019, 12.
[2] The historic context statement is included as an appendix to this report.
[3] California State University, Long Beach, "Campus Master Plan," accessed Oct. 2019.

1.2. Previous Evaluations

Prior to this project, the CSU Long Beach campus has not been comprehensively evaluated for historical significance.[4] A majority of the campus's buildings and site features were less than 50 years of age at the time the current iteration of the Campus Master Plan was prepared (2008), so resources were not evaluated for historical significance at that time. Preparation of the historic context statement in June 2019 represented the first concerted effort toward this end.

1.3. Preparer Qualifications

This project was completed by the following ARG staff: Katie E. Horak, Principal, and Andrew Goodrich, AICP, Associate, both Architectural Historians and Preservation Planners. Additional support was provided by ARG intern Rafael Fontes. Ms. Horak and Mr. Goodrich meet the *Secretary of the Interior's Professional Qualifications Standards*, 36 CFR Part 61, in the discipline of Architectural History.

[4] The majority of the 22-acre Puvungna site, which is located at the undeveloped northwest corner of the CSU Long Beach campus, is a recorded archaeological site that is listed in the National Register of Historic Places. However, the scope of this survey pertains only to historical resources. Archaeological and paleontological resources fall outside the scope of this report.

2. Scope and Methodology

2.1. Project Scope

The scope of this project is a campus-wide historic resources survey of all built resources at the CSU Long Beach campus that were constructed through 1980. The horizon date of 1980 was selected to ensure a look-ahead at potential historic resources that may become age-eligible for listing during implementation of current master planning endeavors. Resources that post-date 1980 were not evaluated as part of this effort.[5] In addition, buildings and facilities that are owned and operated by the university, but are not located within the 322 acres of the university campus, were not evaluated.

2.2. Field and Research Methods

ARG performed the following tasks relating to research, documentation, and analysis:

- Reviewed all pertinent background materials, including the current iteration of the Campus Master Plan (2008) and the *Campus-Wide Historic Context for California State University, Long Beach* (2019);
- Reviewed state and federal technical bulletins, ordinances, and other materials regarding historic context statements, historic resource surveys, and the evaluation of historical resources;
- Generated Geographic Information Systems (GIS) maps of the campus and environs to graphically convey chronological patterns of development;
- Conducted a reconnaissance-level survey for the purposes of photography and field evaluation. The reconnaissance survey was conducted in accordance with guidelines provided by the State Office of Historic Preservation (OHP) and the National Park Service (NPS);
- Conducted limited primary and secondary source research to supplement field observations and information conveyed in the historic context statement, as needed;
- Identified contexts and themes based on information enumerated in the historic context statement and field observations noted in the reconnaissance survey; developed eligibility standards and integrity thresholds for each context/theme combination to devise a consistent, systematic approach to evaluating the eligibility of potential historic resources on campus; and
- Conducted an intensive-level survey of all potential historic resources on campus; documented each eligible resource with a narrative description and digital photographs.

[5] The year 1980 was mutually agreed upon by the CSU Long Beach Office of Physical Planning and Sustainability and ARG as being inclusive of all resources that may achieve historic significance over the life of the next master plan update.

The National Park Service defines **a reconnaissance-level survey** as "a 'once-over lightly' inspection of an area, most useful for characterizing its resources in general and for developing a basis for deciding how to organize and orient more detailed survey efforts."[6] Toward this end, ARG's team of architectural historians walked the entire CSU Long Beach campus and took note of prevailing development patterns, architectural styles, and the general age and integrity of buildings and resources. Looking at the entire campus at once enabled the survey team to consider resources in their larger context(s) and allowed for effective comparative analysis. Based on observations that were made during the reconnaissance survey, the survey team developed an initial list of resources that appeared to be potentially significant against National Register and/or California Register eligibility criteria.

Resources that were identified in the reconnaissance survey were subsequently vetted through additional research and, if determined to eligible against federal and/or state criteria, were documented in an **intensive-level survey**. Each eligible resource was documented with digital photographs and a narrative description, included in this report. Each eligible resource was also recorded on the appropriate standardized state inventory (DPR) forms, which are included as an appendix to this report.

Research conducted as part of this survey was informed by various primary and secondary source materials maintained by the following repositories: the CSU Long Beach Library, including its Special Collections and University Archives; the Long Beach Public Library; the Los Angeles Public Library; the archives of the *Press-Telegram*, the *Los Angeles Times*, and other periodicals; archival building records and construction documents provided by the CSU Long Beach Office of Physical Planning and Sustainability; technical bulletins published by the National Park Service and the California Office of Historic Preservation; various online repositories; and ARG's in-house collection of architectural books and reference materials. A complete list of sources is included in *Section 7: Bibliography* of this report.

The survey methodology described above was developed in accordance with the following materials maintained by the National Park Service and the California Office of Historic Preservation:

- National Register Bulletin (NRB) 15: *How to Apply the National Register Criteria for Evaluation*
- NRB 16A: *How to Complete the National Register Registration Form*
- NRB 16B: *How to Complete the National Register Multiple Property Documentation Form*
- NRB 24: *Guidelines for Local Surveys: A Basis for Preservation Planning*
- NPS Technical Preservation Services, Preservation Brief 36, *Protecting Cultural Landscapes: Planning, Treatment, and Management of Historic Landscapes*
- California Office of Historic Preservation (OHP): *Writing Historic Contexts*
- California Office of Historic Preservation: *Instructions for Recording Historical Resources*

[6] National Park Service, *National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning* Chapter II: Conducting the Survey (revised 1985).

2.3. California Historical Resource Status Codes

First adopted in 1975 and substantially amended in 2003, the California Historical Resource Status Codes (referred to herein as "status codes") are a systematic means of classifying historical resources that are evaluated either in a historic resources survey or as part of a regulatory process.[7] Each status code conveys two essential pieces of information: (1) a classification code that signifies at which designation level (federal, state, or local) the resource is determined eligible, if at all; and (2) a qualifier that indicates under which program or regulatory process the evaluation was initiated. Resources and their associated status code(s) are subsequently input into the state's HRI database for reference.

Various derivatives of the status codes exist, some of which are rarely used or are not applicable to this project. Listed below are the status codes ARG used when evaluating the CSU Long Beach campus:

CODE	DESCRIPTION
3B	*Appears eligible for the National Register (NR) both individually and as a contributor to a NR eligible district through survey evaluation.*
3D	*Appears eligible for NR as a contributor to a NR eligible district through survey evaluation.*
3S	*Appears eligible for NR as an individual property through survey evaluation.*
3CB	*Appears eligible for the California Register (CR) both individually and as a contributor to a CR eligible district through survey evaluation.*
3CD	*Appears eligible for the CR as a contributor to a CR eligible district through survey evaluation.*
3CS	*Appears eligible for the CR as an individual property through survey evaluation.*
6Z	*Found ineligible for NR, CR, or local designation through survey evaluation.*

2.4. Resource Types

In addition to individual buildings, the survey team evaluated other recognized types of historic resources, which are significant elements of the campus's built environment and help to convey the story of its development. Following is a description of each major resource category that was identified:[8]

- **Buildings** are erected to shelter some aspect of human habitation. As buildings are the foundation of any developed area, they represent a very common resource type. They house a variety of residential, commercial, institutional, and industrial uses.

[7] For more information about status codes and their application, refer to the State Office of Historic Preservation's *Technical Assistance Bulletin #8*: http://ohp.parks.ca.gov/pages/1069/files/tab8.pdf.
[8] These resource categories and descriptions are derived from *NRB 15: How to Apply the National Register Criteria for Evaluation.* For more information, refer to http://www.nps.gov/nr/publications/bulletins/nrb15/.

- **Objects** are differentiated from structures in that they are either decorative or nature, or are comparatively small and simply constructed. Resources such as signs, fountains, monuments, sculptures and public art installations, and street lamps are typically classified as objects.
- **Historic Districts** are identifiable areas that are related geographically and by theme. Districts are significant for the interrelationship between their resources and consist of historically and/or functionally related properties. The National Park Service (NPS) defines a district as possessing "a significant concentration, linkage, or continuity of site, building, structures, or objects united historically or aesthetically by plan or physical development."[9] Residential neighborhoods, commercial areas, and institutional campuses are examples of resources that may be recorded as historic districts.
- **District Contributors and Non-Contributors** refer to the buildings, structures, objects, sites, and other features that are located within the boundaries of a historic district. Generally speaking, contributors help to convey the significance of the district. Non-contributors, on the other hand, are identified as such because they have been extensively altered or were built outside of the district's historic period (known as the period of significance).

[9] Derived from *NRB 15: How to Apply the National Register Criteria for Evaluation.* For more information, refer to http://www.nps.gov/nr/publications/bulletins/nrb15/.

3. Regulatory Environment

3.1. National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's master inventory of known historic resources. Established under the auspices of the National Historic Preservation Act of 1966, the National Register is administered by the National Park Service (NPS) and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Eligibility for in the National Register is addressed in National Register Bulletin (NRB) 15: *How to Apply the National Register Criteria for Evaluation*. NRB 15 states that in order to be eligible for the National Register, a resource must both: (1) be historically significant, and (2) retain sufficient integrity to adequately convey its significance.

Significance is assessed by evaluating a resource against established eligibility criteria. A resource is considered significant if it satisfies any one of the following four National Register criteria:[10]

- Criterion A (events): associated with events that have made a significant contribution to the broad patterns of our history;
- Criterion B (persons): associated with the lives of significant persons in our past;
- Criterion C (architecture): embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction;
- Criterion D (information potential): has yielded or may be likely to yield, information important in prehistory or history.

Once significance has been established, it must then be demonstrated that a resource retains enough of its physical and associative qualities – or *integrity* – to convey the reason(s) for its significance. Integrity is best described as a resource's "authenticity" as expressed through its physical features and extant characteristics. Generally, if a resource is recognizable as such in its present state, it is said to retain integrity, but if it has been extensively altered then it does not. Whether a resource retains sufficient integrity for listing is determined by evaluating the seven aspects of integrity defined by NPS:

- Location (the place where the historic property was constructed or the place where the historic event occurred);
- Setting (the physical environment of a historic property);
- Design (the combination of elements that create the form, plan, space, structure, and style of a property);

[10] Some resources may meet multiple criteria, though only needs to be satisfied for National Register eligibility.

- Materials (the physical elements that were combined or deposited during a particular period of time and in a particular manner or configuration to form a historic property);
- Workmanship (the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory);
- Feeling (a property's expression of the aesthetic or historic sense of a particular period of time);
- Association (the direct link between an important historic event/person and a historic property).

Integrity is evaluated by weighing all seven of these aspects together and is ultimately a "yes or no" determination – that is, a resource either retains sufficient integrity, or it does not.[11] Some aspects of integrity may be weighed more heavily than others depending on the type of resource being evaluated and the reason(s) for the resource's significance. Since integrity depends on a resource's placement within a historic context, integrity can be assessed only after it has been concluded that the resource is, in fact, significant.

3.2. California Register of Historical Resources

The California Register of Historical Resources (California Register) is an authoritative guide used to identify, inventory, and protect historical resources in California. Established by an act of the State Legislature in 1998, the California Register program encourages public recognition and protection of significant architectural, historical, archeological, and cultural resources; identifies these resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the California Environmental Quality Act (CEQA).

The structure of the California Register program is similar to that of the National Register, though the former more heavily emphasizes resources that have contributed specifically to the development of California. To be eligible for the California Register, a resource must first be deemed significant under one of the following four criteria, which are modeled after the National Register criteria listed above:

- Criterion 1 (events): associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- Criterion 2 (persons): associated with the lives of persons important to local, California, or national history;
- Criterion 3 (architecture): embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values;
- Criterion 4 (information potential): has yielded, or has the potential to yield, information important to the prehistory or history of the local area, state, or the nation.

[11] Derived from NRB 15, Section VIII: "How to Evaluate the Integrity of a Property."

Like the National Register, the California Register also requires that resources retain sufficient integrity to be eligible for listing. A resource's integrity is assessed using the same seven aspects of integrity used for the National Register. However, since integrity thresholds associated with the California Register are generally less rigid than those associated with the National Register, it is possible that a resource may lack the integrity required for the National Register but still be eligible for listing in the California Register.

Certain properties are automatically listed in the California Register, as follows:[12]

- All California properties that are listed in the National Register;
- All California properties that have formally been determined eligible for listing in the National Register (by the State Office of Historic Preservation);
- All California Historical Landmarks numbered 770 and above; and
- California Points of Historical Interest which have been reviewed by the State Office of Historic Preservation and recommended for listing by the State Historical Resources Commission.

Resources may be nominated directly to the California Register. State Historic Landmarks #770 and forward are also automatically listed in the California Register. There is no prescribed age limit for listing in the California Register, although guidelines state that sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with a resource.

3.3. City of Long Beach Local Criteria

In addition to federal and state programs, the City of Long Beach administers a local historic preservation program for historic and cultural resources within the city limits. This program includes mechanisms for designating individual properties (Historic Landmarks) and concentrations of resources (Historic Districts) at the local level. While CSU Long Beach is located within the Long Beach city limits, it is an entity of the State and is not subject to local land use controls. For this reason, ARG did not evaluate potential historic resources on the CSU Long Beach campus against local criteria.

3.4. Evaluating Resources of the Recent Past

As described above, the National Register generally excludes resources that have been built within the past 50 years. According to National Register guidelines, "fifty years is a general estimate of the time needed to develop historical perspective and to evaluate significance. This consideration guards against the listing of properties of passing contemporary interest and ensures that the National Register is a list of truly historic places."[13] Accounting for the possibility that resources fewer than 50 years of age may

[12] California Public Resources Code, Division 5, Chapter 1, Article 2, § 5024.1.
[13] National Register Bulletin, "How to Apply the National Register Criteria for Evaluation." Page 41.

be eligible, the National Register includes Criteria Consideration G for those significant properties constructed within the past 50 years that are eligible because they are of exceptional importance.

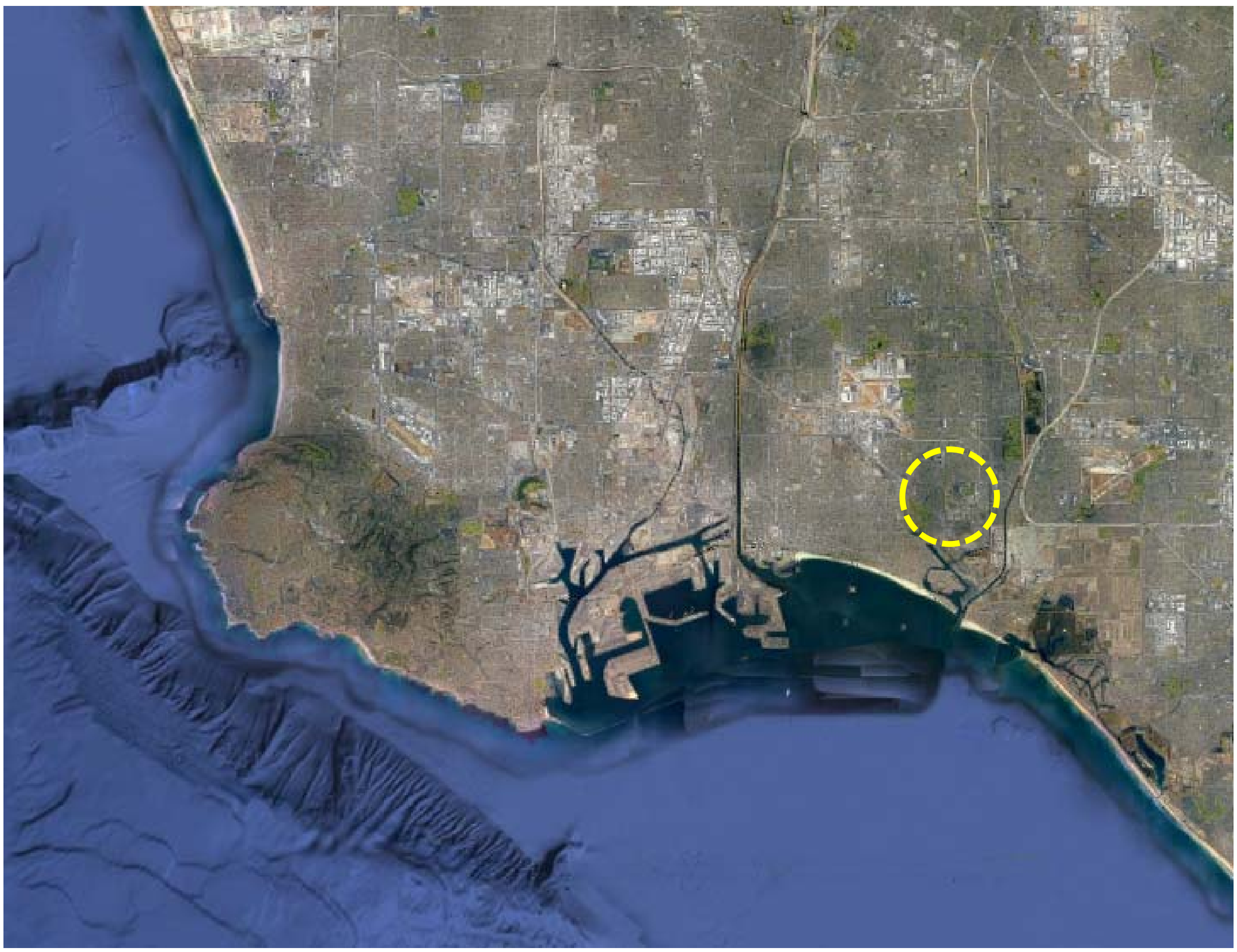
Due to the fact that CSU Long Beach was largely developed in the post-World War II era, and specifically not until the mid-1960s and later, many of its buildings fall into the category of being fewer than 50 years of age at the time of this writing. Understanding that the life of current master planning efforts will extend for at least the next ten years, the evaluation of historic resources provided herein has a projected look at resources that may achieve eligibility for the National Register within the next decade or so. As a result, several buildings that are approaching the 50 year mark at this time have been identified as National Register eligible, in addition to California Register eligible, without application of Criteria Consideration G. This is based on the assumption that the findings of this historic resources survey will be utilized for planning purposes over at least the next decade or so, during which many of CSU Long Beach's significant buildings will achieve 50 years of age.

Significant buildings that are fewer than 40 years of age at this time were generally not identified as eligible for the National Register, unless they appear to meet Criterion Consideration G, since even a projected look is in most cases not sufficient to gain perspective on their eligibility for federal listing. In these cases, they were identified as eligible for the California Register, which does not have a strict 50-year age requirement.

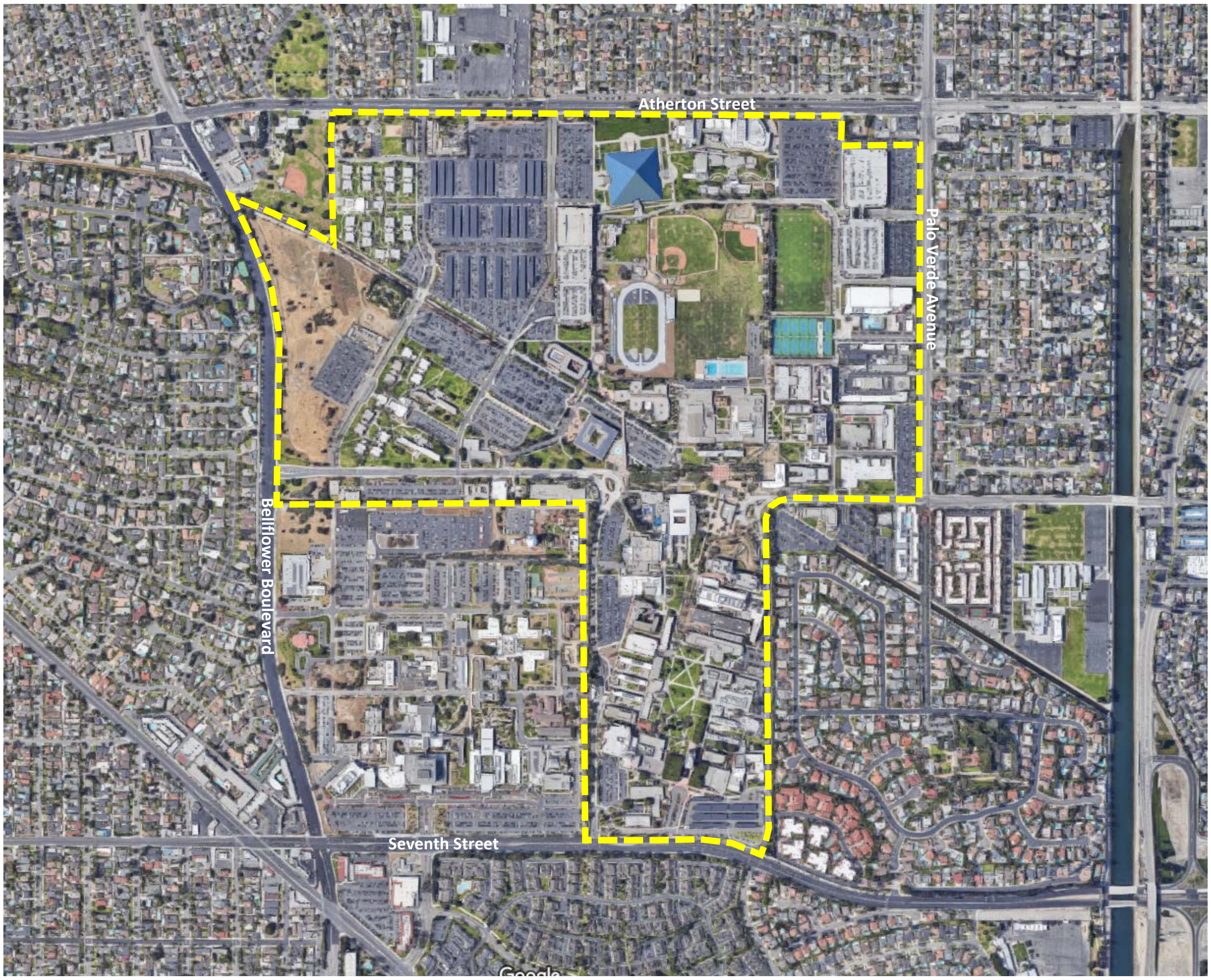
4. Survey Area Description

The boundaries of the Survey Area are coterminous with those of the CSU Long Beach campus. Located approximately three miles from the Pacific Ocean, the campus occupies an area in the eastern section of Long Beach called Bixby Hill, so named because much of the surrounding area was historically part of a large estate that was owned by the Bixby family of local renown. Bixby Hill – and, by proxy, the campus – are located near the east city limit of Long Beach and the Los Angeles/Orange County line. The surrounding area is developed with housing tracts, almost all of which appear to post-date World War II.

The campus occupies a large, T-shaped area comprising 322 acres. Its boundaries are generally defined by Atherton Street on the north, Seventh Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west. However, the southern half of the campus, beneath the transect of the "T," is hemmed in by adjacent development including the Veterans Administration (VA) medical center (west), and a residential tract that is anchored by the historic Rancho Los Alamitos adobe (east). Its northwest and northeast corners also jog inward, resulting in a slightly irregular north boundary.



General Location Map. CSU Long Beach is located approximately three miles from the Pacific Ocean, and approximately two miles from the Los Angeles/Orange County Line. Its location is marked in yellow (Google Maps).



Site Map. The boundaries of the Survey Area, which are coterminous with those of the CSU Long Beach campus, are marked in yellow (Google Maps).

The campus is generally flat but exhibits some subtle variations in topography and gently rolling hills. There is an approximate 80-foot change in elevation when traveling from north to south.[14] These topographical features effectively bifurcate the campus into two halves that are delineated by the transect of the "T." The south portion of campus is known as "Upper Campus," so named because it sits at an elevation that is slightly higher than its northern counterpart. Upper Campus includes academic buildings related to the fine arts, liberal arts, life and molecular sciences, education, and humanities, and is also the location of major campus facilities including the library, theater center, bookstore, dining commons, and student union. Most of the development that occurred during the campus's initial period of growth – in the 1950s and 1960s – was concentrated in the Upper Campus, and so this area is more densely developed than the northern half of campus. Consistent with the original (1953) campus master plan for CSU Long Beach, most of the development in the Upper Campus is oriented around a rectilinear

[14] California State University, Long Beach, "Campus Master Plan," accessed Oct. 2019.

grid that is slightly askew of the cardinal directions. Research suggests that the early developers of the campus skewed the grid in this manner to optimize natural light and shade conditions.[15]

The Upper Campus is notable for its lush landscaping. Lengthwise, this area of campus is transected by a broad, axial pedestrian promenade that is accentuated by alleés of mature shade trees, sculptures and public art installations, and site and hardscape features that complement the clean lines and straightforward aesthetic of the campus's Modern buildings. Some of the public art that peppers this area of campus is associated with an international sculpture symposium that was hosted by the university in 1965. Anchoring the south end of the Upper Campus is a nine-story edifice (McIntosh Humanities Building, 1967), which towers high over adjacent development and is approached from the south via a semi-circular driveway. This was historically the primary entrance to the campus, though as development has eked its way to the north there are now multiple points of the ingress to the campus.

The south portion of campus ("Upper Campus") includes many buildings that date to its formative period of growth in the 1950s and '60s. It features a largely uniform architectural vocabulary (top) and corresponding site and landscape features, including an axial promenade (bottom left) and a landscaped quad (bottom right) (ARG, 2019).

[15] Campus-Wide Historic Context for California State University, Long Beach," prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability, Jun. 2019, 21.

Friendship Walk, a pedestrian promenade that transects the campus width-wise, effectively demarcates the boundary between Upper Campus and Lower Campus (ARG, 2019).

The north portion of the campus sits at a slightly lower elevation and is often referred to as “Lower Campus.” Historically, Lower Campus and Upper Campus were sharply delineated by a through-access road (then-known as Anaheim Street) that approximated the axis now defined by Beach Drive, State College Drive, and Friendship Walk. However, vehicular traffic has since been rerouted to the campus perimeter, so Lower Campus and Upper Campus are now delineated by the crest of a hill that spans this axis. The University Student Union, which is built into this hill, marks the line between north and south.

Generally speaking, Lower Campus is less densely developed than Upper Campus and has more developable land. This section of campus includes all on-campus residential facilities (Hillside College, Parkside College, Los Cerritos and Los Alamitos halls, and the International House), multiple physical education facilities and athletic fields, student health and wellness facilities, the Horn Center and University Art Museum, and various buildings and facilities related to facilities management and administration including the campus’s main administration building (Brotman Hall). Lower Campus is also home to academic buildings related to the performing arts, business, continuing education, design, engineering, social sciences, and health and human services. Most on-campus parking facilities – including three parking structures and multiple surface lots – are located in this area of campus. At the north end of the Lower Campus is the Walter Pyramid, a large, cobalt blue pyramidal shaped structure that is used as a sports and multi-purpose arena. The far west end of Lower Campus is the site of a National Register-listed archaeological site, and is thus generally undeveloped aside from a Japanese garden. A channelized drainage easement (Bouton Creek) transects Lower Campus at a diagonal axis.

Compared to Upper Campus, Lower Campus is less rigid in plan. The Hillside College residential complex ascribes to the same skewed axis that is replicated across the Upper Campus, but elsewhere on Lower Campus buildings, streets, and other built features are generally oriented around the cardinal directions. Lower Campus also exhibits a wider variety of architectural styles, owing to the fact that its buildings date to multiple periods in the campus's development history between the 1950s and the present day.

The north portion of campus ("Lower Campus") contains student housing (top left), recreational facilities (top right), administration buildings (bottom right), and buildings and facilities for a variety of academic departments (bottom left). Buildings in the Lower Campus exhibit greater eclecticism with respect to architecture (ARG, 2019).

Major points of vehicular ingress are located at the north (via Earl Warren Drive and Merriam Way), east (via Palo Verde Avenue), and west (via Beach Drive). Upper Campus is bounded by three perimeter streets: East Campus Drive, West Campus Drive, and South Campus Road. Most of these streets are oriented toward the cardinal directions. Generally, vehicular circulation is confined to the perimeters of the campus, so that almost all of the campus core is conducive to pedestrian circulation.

5. Historic Contexts

5.1. Campus-Wide Historic Context Statement

As noted, a historic context statement for CSU Long Beach was prepared in June 2019 (*Campus-Wide Historic Context for California State University, Long Beach,* Dudek). The historic context statement includes a narrative of the campus's development history between its founding in 1949 and the present-day, with particular emphasis on the master planning and architectural guidelines that were put into place by architect Hugh Gibbs in 1953 and later updated by architect Edward "Ed" Killingsworth in 1963.

ARG used the historic context statement to inform the development of a framework for evaluation of potential historic resources on the CSU Long Beach campus. Key contexts that are reflected in the campus's built environment were excerpted from the historic context statement and supplemented with eligibility standards and integrity thresholds, listed herein, to establish a clear, consistent evaluative framework by which surveyors could assess the significance of potential historic resources on campus.

5.2. Historic Context Framework

Summary of Contexts and Themes

To streamline field evaluations, pertinent information included in the historic context statement was distilled down into an evaluative framework comprising the following historic contexts, both of which are the subject of the historic context statement:

- **Context: Campus Master Planning, 1953-1972.** This context addresses concentrations of resources that, as a whole, are illustrative of campus planning principles that shaped the CSU Long Beach campus in its formative years. Resources associated with this context signify those key elements of the 1953 (Hugh Gibbs) and 1963 (Ed Killingsworth) master plans, both of which played a significant role in shaping the campus's sense of place and architectural identity.
- **Context: Architecture and Design, 1953-1980.** This context addresses the range of architectural styles that are found on the CSU Long Beach campus. It helps to define and describe the different architectural modes and styles that collectively give CSU Long Beach its physical character. For each style, lists of typical character defining features help to guide the evaluation of buildings that may have significance for embodying the characteristics of a specific architectural style associated with the postwar Modern movement.

The following sections include a summary of each of the above-listed contexts, including a brief statement of significance, evaluation guidelines, and integrity thresholds. This information was used by the survey team to conduct field evaluations. For a more detailed discussion of these contexts and other information related to the campus and its development history, refer to the complete draft of the historic context statement, which is included as an appendix to this survey report.

Context: Campus Master Planning

The essential physical characteristics that define CSU Long Beach – notably, its general location, site plan, architectural vocabulary, and symbiotic relationship between buildings and landscape – reflect concerted efforts at campus master planning that were implemented in the 1950s and substantially amended in the 1960s. These master planning efforts laid the blueprint for all development at CSU Long Beach, and played a significant role in shaping the campus's built environment and sense of place.

What is now known as CSU Long Beach was conceived in 1949. That year, the California legislature passed Assembly Bill 8, which allocated $125,000 to establish a new four-year state college campus to serve the residents of southeast Los Angeles and Orange counties – two areas that were witnessing exceptionally swift growth after World War II.[16] Initially known as the Los Angeles-Orange County State College, the new institution opened in the fall of 1949, with 160 students and 19 faculty members.[17] At this time, a site had not been selected for the new college, and the institution lacked permanent facilities; it initially operated out of a recently built apartment complex at 5401 East Anaheim Street that had been converted into a makeshift campus.[18] Living rooms passed as lecture halls, bedrooms were used as offices, and garages were used for more intensive purposes like art studios and science labs.[19]

Meanwhile, administrators were seeking a site for a permanent campus. Fullerton, Santa Ana, Lakewood, and Long Beach had all expressed interest in hosting the campus; in 1950 officials settled on a large, 320-acre swath of land on the eastern flank of Long Beach, much of which was owned by the Bixby family.[20] The site comprised a large, T-shaped area that was punctuated by gently rolling hills and anchored by present-day Seventh (south) and Atherton (north) streets. Bisecting the center of the site was Anaheim Street, which charted a north-south course along the transect of the "T" and divided the campus into two halves: north (Lower Campus) and south (Upper Campus). By 1951, student enrollment had increased significantly, and as a result the apartments could no longer adequately accommodate the needs of the growing institution. Dozens of temporary, wood-frame structures that resembled army barracks were erected at the east end of Lower Campus while a permanent campus was realized.[21]

The seeds of a permanent campus were sown in October 1950, when noted Long Beach architect Hugh Gibbs was selected to develop the institution's first-ever master plan. The master plan was envisioned as a blueprint that would guide the college's physical development in a cogent and cohesive manner, accommodating its programmatic needs while also working within the fiscal parameters set forth by the state. Toward this end, Gibbs developed a master plan that was rooted in the following core principles:

> It was determined that the overall feeling of the design should stress simplicity without bleakness, dignity without sternness, be straight-forward, emanating a feeling of warmth and friendliness through the use of color and texture in the materials of construction. This approach dares not to be a timid one if it is to serve as an environmental influence in encouraging the

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[16] David Bernstein and Kaye Briegel, "California State University, Long Beach – A Historical Overview: 1949-1989," 1989, accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives, 1.
[17] Ibid, 3.
[18] "Long Beach Posts Sign on Site of its College," *Los Angeles Times,* Jun. 9, 1950.
[19] Bernstein and Briegel (1989), 2-4.
[20] Ibid, 4; "Long Beach Takes Steps to Buy Site for College," *Los Angeles Times*, Feb. 25, 1950.
[21] Bernstein and Briegel (1989), 4.

> students to constructive thought and action. In like manner, if a proper character and atmosphere can be developed on the campus, it will contribute immeasurably to the creative and cultural development of the students.[22]

The Gibbs master plan laid the groundwork for the physical form of the CSU Long Beach campus as it is experienced today. Specifically, it called for all buildings to be constructed of reinforced concrete, a durable material that was intended to evince a sense of permanence. Exterior walls would consist of exposed concrete and would be periodically accentuated by brick, plaster, terra cotta, and metal to add texture and visual interest. Emphasis was placed on orienting classrooms so that they would optimize natural light, and on enhancing the pedestrian experience through features like covered breezeways and integral landscaping. Gibbs called for most development to be located in the Upper Campus, around a central quadrangle whose axis was tilted to make the most of natural light and topographic conditions.[23]

Gibbs's master plan for the campus was approved in 1953.[24] Construction of the first permanent buildings began shortly thereafter, with several completed in 1955; others were subsequently added as schedules and funding permitted. While a few of these early buildings were designed by Gibbs himself, most were designed by staff architects employed by the State Division of Architecture, using standardized designs that were replicated across the CSU system as a way of keeping construction costs down. The central quad also began to take shape at this time. Consistent with Gibbs's vision, most campus development was concentrated in the area to the south of Anaheim Street (Upper Campus); Lower Campus remained sparsely developed at this time apart from physical education facilities, athletic fields, and remnants of the temporary structures that supported the institution in its nascence.[25]

Implementation of the Gibbs master plan represented a giant leap forward in the quest to develop a permanent campus. However, there were problems with the Gibbs master plan that became evident not long after it was implemented. Most pressing were issues related to capacity. Per the direction of administrators, Gibbs had developed the master plan to accommodate 5,000 full-time students, but student enrollment significantly surpassed early projections and swelled to 10,000 by the fall of 1960.[26] Issues also arose with the college's reliance on the State Division of Architecture to execute Gibbs's vision. Specifically, administrators and students expressed dissatisfaction with the buildings designed by the State Division of Architecture, with many grousing that these buildings were bland and ubiquitous.[27] The Gibbs plan also did not include any provisions for student housing, which became a sticking point as student enrollment increased. In response, two dormitories – Los Alamitos and Los Cerritos halls – were constructed in 1959, in a peripheral area to the north and west of the academic core. These, too, were designed by the State Division of Architecture, and almost immediately fell short of meeting demand.[28]

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[22] "LBSC Proposed Campus, Hugh Gibbs, AIA," n.d., accessed Sept. 2019 via the CSU Long Beach Special Collections and University Archives.
[23] Ibid; "Campus-Wide Historic Context for California State University, Long Beach," prepared by Dudek for the CSU Long Beach Office of Physical Planning and Sustainability, Jun. 2019, 21.
[24] Ibid, 22.
[25] "Projected Master Plan for Long Beach State College," prepared by Killingsworth-Brady-Smith & Associate, 1963, accessed Sept. 19 via the Long Beach Special Collections and University Archives, 2.
[26] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 22.
[27] Ibid, 24.
[28] Ibid, 25.

These issues underscored the pressing need for a new path forward. In 1961, the Board of Trustees for the CSU system had grown so dissatisfied with the quality of design at its campuses that it decided to discontinue using the State Division of Architecture and instead recruit private practice architects to oversee matters related to design and construction.[29] At the Long Beach campus, the noted local architectural firm of Killingsworth-Brady-Smith and Associates was retained in 1962 to serve as consulting campus architect – a role that the firm, and specifically Killingsworth continuously filled until he eventually retired in 2001.[30] Killingsworth's long tenure provided the Long Beach campus with a characteristically cohesive aesthetic that is not found at many other campuses within the CSU system.

Killingsworth's first order of business was to revise the master plan for the campus, incorporating successful elements of the previous (Gibbs) plan but also accounting for its shortcomings. Toward this end a new master plan, developed by Killingsworth, was adopted in January 1963.[31] It aspired "to recognize the many fine features of the original campus…[so that the completed college] will have the appearance of a total building program rather than one of parts."[32] The 1963 master plan was decidedly more forward-reaching than its forebear, introducing a number of new design ideas that improved the student experience and continue to wield influence over the physical form of the campus to this dayThe 1963 master plan was developed to accommodate an eventual campus population of 20,000 full-time students – far more enrollees than were planned for in the previous iteration of the master plan.

Key elements of Killingsworth's master plan included a new monumental entrance that approached the campus from the south, via Seventh Street; a formal plaza at the terminus of this entrance, dominated by a commanding, nine-story "theme building" that would showcase the campus's prevailing style of architecture; a three-story student union that would be tucked into a hillside site to preserve important views; and additional parking. The plan also called for the closure of Anaheim Road (now State College Drive), eliminating automobile traffic from the campus core, and laid the groundwork for an architectural vocabulary that would be applied across the campus and improve its quality of design.[33]

The symbiotic relationship between buildings, landscapes, and site features was a resonant theme in Killingsworth's master plan. Notably, the plan called for the incorporation of sculpture, pools, fountains, and artwork throughout the central quadrangle "to create visual excitement and stimulation," the planting of trees and vines to counterbalance the rigidity of buildings, and the platting of a 60-foot-wide axial promenade between the Library (south) and the Physical Education building (north) to enhance the pedestrian experience.[34] To Killingsworth, landscaping played just as much a role in shaping the campus's character as did its building program, and contributed to establishing a sense of place. A considerable number of the campus's landscapes were designed by landscape architect Edward "Ed" Lovell of Long Beach, who in 1964 was selected by the college to collaborate with Killingsworth.[35]

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[29] Ibid, 24.
[30] Ibid, 28, 52.
[31] "Campus Master Plan OK'd at Long Beach," *Los Angeles Times*, Jan. 27, 1963.
[32] "Projected Master Plan for Long Beach State College" (1963), 7.
[33] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 28. More information about the architectural vocabulary developed by Killingsworth is provided in the *Architecture and Design* context of this document.
[34] "Projected Master Plan for Long Beach State College" (1963), 9-11.
[35] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 28.

The introduction of public art to the CSU Long Beach campus was another cornerstone of the Killingworth master plan, and was seen as a means of infusing the campus with visual interest and contributing to its sense of place. Toward this end, Killingsworth collaborated with fine arts professor Kenneth Glenn and College President Carl McIntosh to organize a sculpture symposium on the campus. This idea was supported by McIntosh and other administrators, and Glenn thereafter "began inviting top artists from around the world to design sculptures for the campus" in concert with the world-renowned International Sculpture Symposium, a worldwide public art showcase that was established in 1959.[36]

In 1965, five sculptors were selected to participate in the symposium including Andre Bloc of France, Kosso Eloul of Israel, Gabe Kohn of the United States, J.J. Baljon of Hlland, and Eduard Palozzi of England, though the lineup of participating sculptors was later amended.[37] Each artist was charged with creating a sculpture at CSU Long Beach, monumental in both scale and concept, which would first be showcased as part of the international exhibition and then donated to the university, becoming a permanent part of its built fabric.[38] Each participating artist "produced massive abstract pieces made from concrete, earth and steel," all of which stood as bold, indelible monuments in their own right and reflected the creative prowess of their respective designer.[39] The outdoor symposium lasted for twelve weeks in 1965. It marked the first time that the International Sculpture Symposium was hosted in the United States and, as such, helped to promote the relatively-young CSU Long Beach campus to an international audience.[40]

The eight sculptures that were produced as part of the symposium include the following:[41]

- "Mu" (Kengiro Azuma, north side of the campus library)
- "Homage to Simon Rodia" (J.J. Beljon, 7th Street and East Campus Drive)
- "Carlson Bloc Bell Tower" (Andre Bloc, Upper Campus promenade)
- "Hardfact" (Kosso Eloul, intersection of East Campus Drive and State University Drive)
- "U as a Set" (Clare Falkenstein, south of McIntosh Humanities Building)
- "Long Beach Contract" (Gabriel Kohn, main entrance of the University Student Union)
- "Now" (Piotr Kowalski, Upper Campus promenade)
- "Duet" (Robert Murray, north of Faculty Office Building 3)

Three other public art installations, not initially planned, were installed during the symposium. These include an outdoor mural on the wall of Faculty Office Building 3 (Rita Letendre), a redwood sculpture at the north end of the campus library (Joe Hobb), and a 44-foot-long redwood sculpture called "Anonymous" that was created by students using surplus materials and dedicated to Kenneth Glenn, the professor who had played an instrumental role in coordinating the symposium.[42]

Killingworth's master plan also addressed a wide void in the previous iteration of the master plan: student housing. It specifically called for the construction of a new dormitory complex to the northwest

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[36] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 55.
[37] Ibid, 56.
[38] Henry J. Seldis, "Top Sculptors May Carve New Look for Long Beach," *Los Angeles Times,* Feb. 21, 1965.
[39] Ibid.
[40] Carolina Miranda, "Why the Getty is Giving Cal State Long Beach's 1960s Sculpture Park a New Look," *Los Angeles Times*, Mar. 26, 2015.
[41] For more information about these art installations, refer to the historic context statement appended to this report.
[42] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 60.

of the academic core, next to two existing dormitory buildings (Los Cerritos and Los Alamitos halls, both constructed 1959) and where Hillside College is located today. As described in the master plan:

> Housing in dormitories is planned for 5,000 students on the west portion of the lower campus. This housing will be medium high rise structures with the primary concern directed towards making the living personal and warm. The buildings are set on a residential type street which is separated from the academic life of the campus and directly connected to the cooperative housing [Los Cerritos/Los Alamitos Halls] so that there will be an interaction between these two areas. Food Services are in a separate building located just north of the existing dormitories.[43]

This lent impetus to the eventual development of two residential colleges on campus: Hillside College (1969) and Parkside College (1985), as well as the International House (1987).

Killingsworth continued to serve as the institution's consulting campus architect for the duration of the twentieth century. In this capacity he appears to have been more involved in the oversight of architectural endeavors than in the design of buildings themselves. Under this arrangement, private practice architects would design new buildings, and would then submit the plans to Killingworth for his input and approval. Most post-1963 buildings on the CSU Long Beach campus were designed in this vein. On occasion, though, Killingsworth's firm was directly involved in the design of campus buildings and facilities including the University Student Union (1972), International House (1987) and the Horn Center/University Art Museum (1993).[44] The firm was also the architect of record for several renovation projects, including additions to the Sorpotimst House (1964) and the university bookstore (1966).

All of California's public colleges and universities – including CSU Long Beach – witnessed phenomenal growth in the 1950s and '60s, but by the early 1970s this growth had begun to visibly wane. The "baby boom" that had produced the acute demand for the expansion of public institutions began to taper off by the late 1960s.[45] Enrollment numbers were accordingly scaled back. A souring of the nation's economy at this time also led to reductions in capital spending, and as a result these institutions' once-ambitious construction plans and capital improvements programs were reigned in. These broad trends became evident in the built environment of CSU Long Beach by the early 1970s. By 1972, after the construction of the University Student Union (Killingsworth-Brady and Associates) and the Theatre Arts Building (Frank Homolka and Associates) on the Upper Campus, new construction on the whole became somewhat more sporadic and less cohesive, reflective of the economic constraints of this era.[46]

[43] "Projected Master Plan for Long Beach State College" (1963), 13.
[44] International House and the Horn Center were not evaluated in this survey because they post-date the end date of 1980.
[45] Jeremy Greenwood, et al., "The Baby Boom and Baby Bust," The American Economic Review 95.1 (Mar. 2005), 183-207.
[46] Bernstein and Briegel (1989), 19.

Evaluation Guidelines: Campus Master Planning, 1953-1972	
Summary Statement of Significance	Resources that are evaluated under this context are significant for conveying the key tenets of the 1953 and 1963 master plans, which shaped the CSU Long Beach campus in its formative years and lent impetus to its built form. These resources express the aesthetic values and planning concepts that played a significant role in defining the campus's distinctive physical and architectural character. Their significance is derived from the symbiotic relationship between all of their requisite elements – including buildings, art installations, and site and landscape features – and not because of any one particular building or feature. Thus, all resources that are deemed significant under this theme are evaluated as historic districts. However, some contributing buildings within these districts may also be individually eligible as an excellent example of an architectural style.
Period of Significance	1953-1972
Period of Significance Justification	The period of significance begins in 1953, when the first campus master plan, developed by architect Hugh Gibbs, was adopted. It ends in 1972, by which point demographic and economic factors began to affect development, and new construction began to notably deviate from the master plan.
Applicable Criteria	A historic district associated with this context is eligible under **Criterion C/3** (architecture/design), as an excellent, intact concentration of resources that visually express key tenets of the 1953 and 1963 master plans. In some instances, a historic district associated with this context may also be eligible under **Criterion A/1** (events) if it is demonstrably associated with important patterns of events, such as those related to the early institutional development of the campus.
Eligibility Standards	To be eligible under this context, a historic district should, at minimum, satisfy the following eligibility standards: • Date to the period of significance (1953-1972), and • Retain the essential aspects of integrity, and • Retain enough of its essential physical characteristics to adequately convey its association with campus master planning. • Resources are eligible under this theme only if they can be demonstrably linked to the key planning and architectural ideas articulated in the 1953 and 1963 campus master plans. Concentrations of resources that share some similar qualities but lack a clear and cogent connection to the ideas expressed in these plans are generally not eligible under this theme.

Integrity Considerations	A historic district evaluated under this theme should retain integrity of design, materials, workmanship, and feeling, at minimum, to be eligible for listing. Buildings and features may have experienced some minor alterations over time, but should retain their original scale, massing, and significant architectural features to be considered a contributing element of the district. Limited demolition, alteration, and infill development is permissible so long as the key architectural and planning principles linking the district to the 1953/1963 master plans remain intact and sufficiently legible.

Context: Architecture and Design

Most of the buildings at CSU Long Beach ascribe to an institutional derivative of the Mid-Century Modern style, which was applied to new buildings across the campus during its formative years. Conceived by Hugh Gibbs, and honed by Ed Kilingsworth and the private practice architects with whom he collaborated, this dialect of Modernism provided the campus with a strong sense of aesthetic cohesion and a discernible architectural identity that is rooted in the tenets of the Modern movement.

"Mid-Century Modern" is a broad term that is used to describe the various derivatives of Modern architecture that flourished in the post-World War II period. These include post-war adaptations of the chaste and machined International Style, the rational aesthetic associated with post-and-beam construction, and more organic and expressive interpretations of the Modern architectural movement. Mid-Century Modernism was popular between the mid-1940s and early 1970s.[47] It proved to be a remarkably versatile idiom that was expressed through a wide variety of property types ranging from single residences, to large-scale housing tracts, to commercial buildings, and to institutional properties and college campuses. Its aesthetic was deftly incorporated into both high-style buildings and the local vernacular, and was employed by architects, developer-builders, and lay contractors alike.

Various experiments in Modern architecture that were introduced in the early twentieth century lent impetus to the Mid-Century Modern style. The International Style, which came out of Europe in the 1920s, introduced a cogent, straightforward approach to design that was characterized by simple geometries, smooth wall surfaces, the honest expression of structure and materials, and the absence of superfluous ornament.[48] International Style buildings were characteristically lithe, airy, "gleaming and seemingly machine-made."[49] At about the same time, a group of maverick American architects including Frank Lloyd Wright and Irving J. Gill were also working with experimental new forms, methods, and materials in their quest to develop a truly indigenous style of American architecture.[50]

Mid-Century Modernism draws upon these earlier paradigms, and is emblematic of how the Modern movement was adapted to the conditions of post-World War II life. Over time, architects took the basic tenets of the International Style and similar experiments in domestic Modernism and modulated them into new dialects of Modernism that were both rational and sensitive to their respective physical and cultural contexts. In Southern California, this was manifest in an architectural vocabulary defined by structural and material expression, wide expanses of glass, and open, free-flowing interior plans.[51] Some architects, captivated by the movement's emphasis on freedom of form and structural innovation, also incorporated sweeping forms and expressionistic elements into Mid-Century Modern design, referencing the organic and sculptural tendencies of architects like Frank Lloyd Wright and John Lautner.

Arguably more than anywhere else, Southern California was a locus of innovation with respect to post-war Modernism. In large part, this can be attributed to the advent of *Arts & Architecture* magazine's

[47] SurveyLA, Citywide Historic Context Statement Summary Tables, "Architecture and Engineering, 1850-1980."
[48] Natalie W. Shivers, "Architecture: A New Creative Medium," in *LA's Early Moderns: Art/Architecture/ Photography* (Los Angeles: Balcony Press, 2003), 132.
[49] Mark Rozzo, "Architect Dion Neutra, Who Fought to Save His Father's Iconic Buildings, Dies, *Los Angeles Times*, Nov. 25, 2019.
[50] Ibid, 124.
[51] SurveyLA, Citywide Historic Context Statement Summary Tables, "Architecture and Engineering, 1850-1980."

Case Study House Program, an internationally recognized showcase of residential design that was commissioned by the magazine's forward-reaching editor, John Entenza. Commencing in 1945 and continuing until 1966, the program publicized a total of thirty-six prototypical dwellings that were designed by a cadre of progressive architects, many of whom who would go on to become some of the region's foremost exponents of postwar Modernism.[52] Entenza foresaw the extraordinary demand for new housing that affected American society after World War II, and intended for the program to showcase, in real time, how modern materials and methods could be applied to produce high-quality dwellings that were suited to mass production and attainable to the burgeoning middle class.[53]

Different variants of the Mid-Century Modern style emerged as the movement gained traction and became more mainstream. The style was favored by large-scale institutional properties such as colleges and universities, which were tasked with developing large, dense, multimodal campuses to accommodate the droves of incoming students seeking higher education in the postwar period. Mid-Century Modernism's emphasis on rational, economic buildings that could be produced en masse lent themselves especially well to these institutions, which needed to expand quickly and within the confines of capital construction budgets. In contrast to the extravagantly ornamented Gothic Revival and Romanesque Revival styles that had previously been favored by institutions of higher learning in earlier decades, Mid-Century Modernism utilized materials that were generally more cost effective and readily available. Industrial materials like cast concrete, steel structural frames, and laminated beams were used in lieu of structural brick, terra cotta, or stone, significantly reducing construction costs.[54]

The group of architects who shaped and melded the CSU Long Beach campus during its formative years developed a variant of Modernism that was applied across the campus and provided it with its characteristically unified aesthetic. This visual vocabulary was set into motion by original master plan architect Hugh Gibbs, who in 1953 established the prevailing scale and dominant material types for all new campus buildings. In the 1960s, Killingsworth took these design principles a step further, transposing them into a codified architectural vocabulary that was intended to bridge existing buildings with new construction and ensure that all development on campus was orderly and cohesive.[55] Per Killingsworth, all buildings were to be constructed of concrete; roofs were to be flat; exterior walls were to be finished in slender Norman bricks, painted concrete, and/or textured plaster; windows were to be metal sash and, when applicable, covered with aluminum sunscreens finished in bronze tones; and building and site features would ascribe to a neutral color palette based on the Plochere Color System.[56]

Generally, the **Mid-Century Modern** style, expressed in the context of public institutional architecture, exhibits the following character-defining features:

- Simple, geometric building forms
- Concrete, steel, and glass construction (larger buildings); wood construction (smaller buildings)
- Direct expression of the structural system

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[52] "National Register of Historic Places Multiple Property Documentation Form, The Case Study House Program: 1945-1966," prepared Dec. 2012, revised Mar. 2013.
[53] John Entenza, "Announcement: The Case Study House Program," Arts and Architecture (Jan. 1945), 37-39.
[54] Ibid.
[55] "Campus-Wide Historic Context for California State University, Long Beach" (2019), 33.
[56] Ibid, 33-39.

- Flat roofs, with or without eaves
- Flush-mounted metal frame windows (often expressed as curtain walls in larger buildings)
- Metal window screens (*brise soleil*), often comprising geometric patterns or motifs
- Minimal surface ornament and decorative details
- Integrated landscapes, often in the form of courtyards or plazas

By the late 1960s, some campus architects designed buildings that were still firmly rooted in the Mid-Century Modern movement but also exhibited abstracted Classical proportions and motifs. This derivative of Mid-Century Modernism is known as the New Formalist style and was most commonly expressed in the context of banks, auditoriums, and college and university campuses. New Formalism represented a reaction to, but not a complete diversion from, the orthodoxy of postwar Modern architecture and the International style. Its exponents exercised some creative license by incorporating elements of Classical architecture like strict symmetry, arches, and colonnades, albeit in abstract ways.

Character-defining features of **New Formalism** include the following:

- Strict symmetry and formality
- Buildings are often monumental in size and appearance
- Flat roof, often with a heavy, projecting overhang, emulating a simplified cornice
- Smooth wall surfaces
- Colonnades comprising full-height columnar supports
- Incorporation of arches and rounded openings
- Minimal surface ornament and decorative details
- Integrated landscapes, often in the form of interior courtyards or plazas

Due of their involvement in the development of early campus master plans, Hugh Gibbs and Ed Killingsworth are the two architects most closely associated with the architecture of CSU Long Beach. However, over the course of the campus's history a number of other practitioners have been involved in the design of individual buildings. For a complete list of architects who contributed to the development of the campus, refer to the historic context statement appended to their report.

Evaluation Guidelines: Architecture and Design, 1953-1980	
Summary Statement of Significance	Resources that are evaluated under this context are significant as excellent examples of their respective architectural style or type, and/or as a notable work of an architect, builder, or designer who demonstrated a mastery of their craft. By virtue of its role as a major public university and as an institutional focal point of the region, the CSU Long Beach campus has many prominent buildings that were designed by noted architects of the day. Therefore, buildings that are significant for their architecture must not merely include some features that are associated with a particular style or type, but must be an excellent or otherwise noteworthy example of their respective style/type. Moreover, buildings are not eligible simply because they are the work of a significant architect; to be eligible, they must also express a particular phase in the development of their career or a notable aspect or idea of his/her work. Resources evaluated under this theme include individual buildings and concentrations of buildings that share a cohesive aesthetic (historic districts).
Period of Significance	1953-1980
Period of Significance Justification	Architecture and design is not a temporal context, but rather spans the entire period covered by the survey. Thus, the period of significance begins in 1953, when the first permanent buildings at CSU Long Beach were constructed, and ends in 1980, which is the end date of this survey.
Applicable Criteria	An individual building or historic district associated with this context is eligible under **Criterion C/3** (architecture/design), as an excellent example (or concentration) of an architectural style or type that contributes to the architectural character of the CSU Long Beach campus, and/or as an important work of a notable architect, builder, or designer.
Eligibility Standards	To be eligible under this context, an individual building or historic district should, at minimum, satisfy the following eligibility standards: • Date to the period of significance (1953-1980), and • Retain the essential aspects of integrity, and • Retain enough of its essential physical characteristics to adequately convey its association with the context.

	• Significant resources may, but might not always, be associated with a notable architect, builder, or designer. • Because the period of significance spans a period of years that extends into the recent past (within the National Register's 50-year age requirement), a building or district eligible under this context may need to meet Criteria Consideration G to be eligible for the National Register.
Integrity Considerations	An individual building that is significant under Criterion C/3 should retain integrity of design, workmanship, materials, and feeling, at a minimum, in order to be eligible for its architectural merit. A building that has lost some historic materials or details may still be eligible if it retains the majority of the features that illustrate its original style and appearance in terms of its massing, spatial relationships, proportions, and fenestration patterns. A building is not eligible if it retains some basic features conveying form and massing, but has lost the majority of features that originally characterize its style or type. Additionally, buildings that have incurred an accumulation of minor alterations, or have experienced substantial additions that obscure the original design intent, are generally not eligible under this criterion. A historic district significant under this theme should contain a majority of component parts (district contributors) that convey its significance. In the case of a historic district, since it is the collective whole that conveys significance, individual buildings may have endured some material alterations while still retaining sufficient integrity in order to be considered a district contributor.

6. Survey Findings

6.1. Summary of Findings

ARG identified two historic districts and four individually eligible resources in the Survey Area that appear eligible for listing in the National Register and/or California Register:

Historic Districts

RESOURCE NAME	YEAR BUILT	NUMBER OF CONTRIBUTING ELEMENTS
Hillside College Historic District	1966-1969	8 contributing buildings; associated site and landscape features
Upper Campus Historic District	1953-1972	24 contributing buildings; associated site and landscape features

Individual Resources

RESOURCE NAME	YEAR BUILT	ARCHITECT
McIntosh Humanities Building	1967	State Division of Architecture
Psychology Building	1970	Gibbs and Gibbs
Theatre Arts Building	1972	Frank Homolka and Associates
University Student Union	1972	Killingsworth-Brady and Associates

These resources are associated with the aforementioned contexts and themes that are summarized in the Historic Context Framework (Section 5 of this report) and discussed at length in the Historic Context Statement (include as Appendix A). Most resources are concentrated in the Upper Campus, as the majority of development activity was concentrated in this area during the university's formative years. One historic district (Hillside College Historic District) is located in the Lower Campus.

6.2. Historic Districts

The survey identified two historic districts as eligible for listing in the California Register and National Register: the Upper Campus Historic District (1953-1972) and the Hillside College Historic District (1966-1969). Each district embodies the distinctive characteristics of a historic type and period, as an intact concentration of buildings and site planning/landscape features that together convey the architectural principles that were rooted in the postwar Modern movement and so strongly influenced the built environment of the CSULB campus in its formative period of development. Additionally, each district, in its entirety, signifies the collaboration between master plan architects Gibbs and/or Killingsworth, the project architects that worked under their supervision, and landscape architect Edward Lovell.

Both historic districts were developed under the auspices of two campus master plans that were adopted in 1953 and 1963 and played an important role in shaping the campus's built environment and physical form. Both districts embody the key tenets of these master plans, and clearly reflect the visions set forth by their creators. Their contributing buildings conform to the campus architectural vocabulary that was prescribed by master plan architect Ed Killingsworth and stressed the use of modern methods, materials, and building forms. Both historic districts are accompanied by a unique blend of site and landscape features that respond to the 1963 plan's emphasis on integrating buildings and environs.

It bears emphasis that the significance of these historic districts is expressed not in the design of any one individual building, but in the design of the district as a whole. It is the interrelationship of each district's individual components – including its site plan, buildings, landscape design, and associated site and landscape features – that convey the key planning and architectural principles that were codified in the 1953 and 1963 master plans. On their own, these elements may seem ubiquitous and even nondescript; together, they paint a complete and compelling picture of those forces that shaped the distinctive architectural character of the CSU Long Beach campus. Within this context, then, both areas meet the definition of a "historic district," defined as "a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development."[57]

Included below are summary tables that include a brief description of each district, its boundaries, and its contributing and non-contributing features.

[57] National Register Bulletin 15, 5.

Summary Tables: Hillside College Historic District

Name: Hillside College Historic District	
Period of Significance: 1966-1969	
Number of Buildings: 8 (8 contributing)	
Area(s) of Significance: Campus Planning; Architecture and Design	
Applicable Criteria: C/3	
Status Code: 3S; 3CS	

Summary of Significance: The Hillside College Historic District appears to be eligible for listing in the National Register and California Register under Criterion C/3.

The district, in its entirety, satisfies this criterion because it embodies the distinctive characteristics of a historic type and period. Specifically, it is an intact concentration of buildings and site/landscape features that together convey the architectural principles that were rooted in the Mid-Century Modern movement and so strongly influenced the character of the CSULB campus in its formative period of development.

In addition, the district satisfies this criterion as a successful example of the collaboration between three notable architects/firms: Neptune and Thomas and Associates (project architect), Killingsworth-Brady and Associates (consulting architect), and Edward Lovell (landscape architect). The architectural and landscape features that define the district represent a meeting of the minds between these notable practitioners, showing how they demonstrated mastery in their respective areas of practice to create an environment that met the objectives of the campus master plan and was firmly rooted in the tenets of Mid-Century Modern architecture and planning.

The district comprises eight buildings, of which all (100%) are contributing. It also includes corresponding site/landscape features that are related features of the district and contribute to its significance. The district's period of significance is 1966-1969, accounting for the period during which all of its contributing features were planned, designed, and built.

District Contributors

Name: Residence Hall/Building A	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Residence Hall/Building B	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

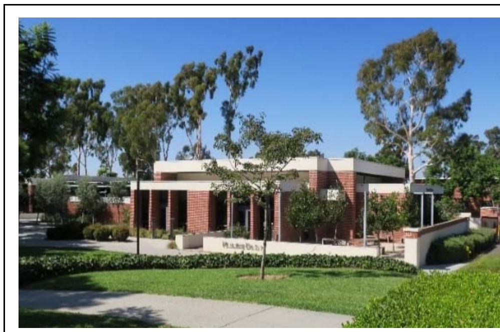
Name: Residence Hall/Building C/Naomi Rainey House	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Residence Hall/Building D	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Residence Hall/Building E	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Residence Hall/Building F	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Hillside Commons-Office/Building G	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	



Name: Hillside Dining/Building H	
Year Built: 1969	
Architectural Style: Mid-Century Modern	
Architect: Neptune and Thomas and Associates	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

CSU Long Beach | Hillside College Historic District
District Map

Summary Tables: Upper Campus Historic District

	**Name:** Upper Campus Historic District
	Period of Significance: 1953-1972
	Number of Buildings: 28 (24 contributing)
	Area(s) of Significance: Institutional Development; Campus Planning; Architecture and Design
	Applicable Criteria: A/1; C/3
	Status Code: 3S; 3CS

Summary of Significance: The Upper Campus Historic District appears to be eligible for listing in the National Register and California Register as a historic district under Criteria A/1 and C/3.

The district, in its entirety, conveys significant patterns of institutional development related to the founding and early development of CSU Long Beach. Together, its buildings and site planning/landscape features tell the story of how in its nascence, the institution developed from a small commuter school into an important regional hub of higher education. The district is a physical expression of the myriad institutional factors and architectural and planning paradigms that came together to shape the early growth of the campus. As such, it embodies broad patterns of institutional history per Criterion A/1.

The district is also eligible for the National Register and California Register under NRHP Criterion C/CRHR Criterion 3. The district, in its entirety, embodies the distinctive characteristics of a historic type and period as an intact concentration of buildings and site planning/landscape features that together convey the architectural principles that were rooted in the Mid-Century Modern movement and so strongly influenced the character of the CSULB campus in its formative period of development.

In addition, the district satisfies NHRP Criterion C/CRHR Criterion 3 as a successful example of the collaboration between multiple notable architects/firms: Gibbs and Gibbs and Killingsworth-Brady and Associates (consulting architects), Edward Lovell (landscape architect), and the various project architects who worked under their direction. The architectural and landscape features that define the district represent a meeting of the minds between these notable practitioners, showing how they demonstrated mastery in their respective areas of practice to create an environment that met the objectives of the campus master plan and was firmly rooted in the tenets of Mid-Century Modern architecture and planning.

The district comprises 28 buildings, of which 24 (86%) are contributing. It also includes corresponding site/landscape features and public art installations that are related features of the district and contribute to its significance. The district's period of significance is 1953-1972, accounting for the period during which its contributing features were planned, designed, and built.

District Contributors

	**Name:** Academic Services (AS)
	Year Built: 1955 (addition in 1959)
	Architectural Style: Mid-Century Modern
	Architect: Hugh Gibbs
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** Bookstore and Forty-Niner Shops (BKS)
	Year Built: 1955
	Architectural Style: Mid-Century Modern
	Architect: Hugh Gibbs (addition in 1966)
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** College of Liberal Arts Administration (CLA)
	Year Built: 1954
	Architectural Style: Mid-Century Modern
	Architect: Hugh Gibbs
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** Education 2 (ED2)
	Year Built: 1961
	Architectural Style: Mid-Century Modern
	Architect: State Division of Architecture
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

Name: Ellis Education Building (EED)	
Year Built: 1957	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Faculty Office 2 (FO2)	
Year Built: 1957	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Faculty Office 3 (FO3)	
Year Built: 1959	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Fine Arts 1 (FA1)	
Year Built: 1954	
Architectural Style: Mid-Century Modern	
Architect: Hugh Gibbs	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Fine Arts 2 (FA2)	
Year Built: 1954	
Architectural Style: Mid-Century Modern	
Architect: Hugh Gibbs	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Fine Arts 3 (FA3)	
Year Built: 1958	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Fine Arts 4 (FA4)	
Year Built: 1962	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

Name: Language Arts Building (LAB)	
Year Built: 1967	
Architectural Style: Mid-Century Modern	
Architect: State Division of Architecture	
Status: Contributor	
Individually Eligible: No	
Status Code: 3D; 3CD	

	**Name:** Lecture Hall 150-151 (LH)
	Year Built: 1955
	Architectural Style: Mid-Century Modern
	Architect: State Division of Architecture
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** Liberal Arts 1 (LA1)
	Year Built: 1962
	Architectural Style: Mid-Century Modern
	Architect: State Division of Architecture
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** Liberal Arts 5 (LA5)
	Year Built: 1962
	Architectural Style: Mid-Century Modern
	Architect: State Division of Architecture
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

	**Name:** Library (LIB)
	Year Built: 1971
	Architectural Style: New Formalist
	Architect: Joint Venture Architects
	Status: Contributor
	Individually Eligible: No
	Status Code: 3D; 3CD

Name: McIntosh Humanities Building (MHB)
Year Built: 1967
Architectural Style: Mid-Century Modern
Architect: State Division of Architecture
Status: Contributor
***Individually Eligible**: Yes
Status Code: 3B; 3CB

Name: Multi-Media Center (MMC)
Year Built: 1971
Architectural Style: New Formalist
Architect: Joint Venture Architects
Status: Contributor
Individually Eligible: No
Status Code: 3D; 3CD

Name: Psychology Building (PSY)
Year Built: 1970
Architectural Style: Mid-Century Modern
Architect: Gibbs and Gibbs
Status: Contributor
***Individually Eligible**: Yes
Status Code: 3B; 3CB

Name: Theatre Arts (TA)
Year Built: 1972
Architectural Style: New Formalist
Architect: Frank Homolka and Associates
Status: Contributor
***Individually Eligible**: Yes
Status Code: 3B; 3CB

Name: University Dining Plaza (UDP)
Year Built: 1957
Architectural Style: Mid-Century Modern
Architect: State Division of Architecture
Status: Contributor
Individually Eligible: No
Status Code: 3D; 3CD

Name: University Student Union (USU)
Year Built: 1972
Architectural Style: Mid-Century Modern
Architect: Killingsworth-Brady and Associates
Status: Contributor
***Individually Eligible**: Yes
Status Code: 3B; 3CB

Name: University Telecommunication Center (UTC)
Year Built: 1958
Architectural Style: Mid-Century Modern
Architect: State Division of Architecture
Status: Contributor
Individually Eligible: No
Status Code: 3D; 3CD

Name: University Theatre (UT)
Year Built: 1955
Architectural Style: Mid-Century Modern
Architect: Hugh Gibbs
Status: Contributor
Individually Eligible: No
Status Code: 3D; 3CD

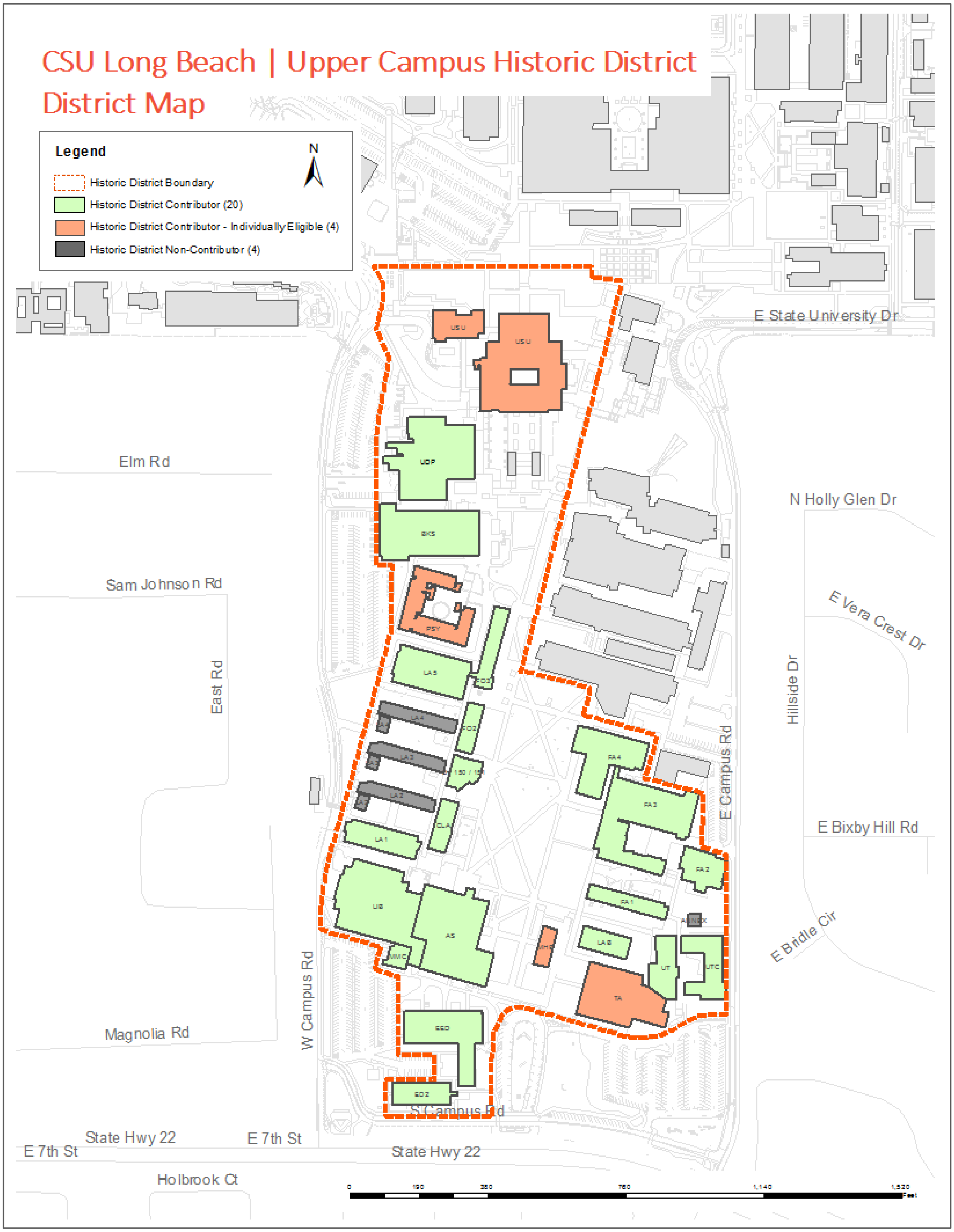
District Non-Contributors

	**Name:** Art Annex (ANNEX) **Year Built:** 1970 **Architectural Style:** No style **Architect**: Not determined **Status:** Non-Contributor **Reason**: Does not represent historic contexts **Status Code:** 6Z

	**Name:** Liberal Arts 2 (LA2) **Year Built:** 1954 **Architectural Style:** Mid-Century Modern **Architect**: Hugh Gibbs **Status:** Non-Contributor **Reason**: Extensively altered; does not retain integrity **Status Code:** 6Z

	**Name:** Liberal Arts 3 (LA3) **Year Built:** 1954 **Architectural Style:** Mid-Century Modern **Architect**: Hugh Gibbs **Status:** Non-Contributor **Reason:** Extensively altered; does not retain integrity **Status Code:** 6Z

	**Name:** Liberal Arts 4 (LA4) **Year Built:** 1955 **Architectural Style:** Mid-Century Modern **Architect**: Hugh Gibbs **Status:** Non-Contributor **Reason**: Extensively altered; does not retain integrity **Status Code:** 6Z


CSU Long Beach | Upper Campus Historic District
District Map
Legend
N
Historic District Boundary
Historic District Contributor (20)
Historic District Contributor - Individually Eligible (4)
Historic District Non-Contributor (4)
E State University Dr
Elm Rd
N Holly Glen Dr
Sam Johnson Rd
E Vera Crest Dr
East Rd
Hillside Dr
E Campus Rd
E Bixby Hill Rd
E Bridle Cir
Magnolia Rd
W Campus Rd
S Campus Rd
State Hwy 22
E 7th St
Holbrook Ct
0
190
380
760
1,140
1,520
Feet

6.3. Individual Resources

Four resources on campus were evaluated as individually eligible. All fall within the boundaries of the Upper Campus Historic District, and are also contributing features of that district.

The four individually eligible resources were evaluated on the basis of their architectural merit. Specifically, the McIntosh Humanities Building (1967), Psychology Building (1970), and University Student Union (1972) were all evaluated as excellent examples of Mid-Century Modern architecture, and the Theatre Arts Building (1972) was evaluated as an excellent example of New Formalist architecture. Each of these buildings exhibits a level of articulation and detail that distinguish them from other buildings on campus and render them valuable to a study of postwar Modern architecture. All express the creativity and ingenuity that is so closely associated with the Modern architectural movement, without stepping outside the bounds of the carefully crafted architectural vocabulary for the campus that was put in place by architect Hugh Gibbs and later codified by architect Ed Killingsworth.

Included below are summary tables that include a brief description of each individually eligible resource and a summary of its significance.

Summary Tables of Individual Resources

	**Name:** McIntosh Humanities Building (MHB)
	Year Built: 1967
	Architectural Style: Mid-Century Modern
	Architect: State Division of Architecture
	Area(s) of Significance: Architecture and Design
	Applicable Criteria: C/3
	Status Code: 3B; 3CB

Summary of Significance: The McIntosh Humanities Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include simple massing and geometric forms, a flat roof, a material palette comprising Norman brick and painted concrete, bands of metal sash windows, and metal *brise soleil* with rectilinear forms. Rising nine stories, this building towers over other development in this area of the CSULB campus. It was intended to be a bold architectural statement with a monumental presence and was intended to serve as the "theme building" for the rest of the campus, showcasing the architectural vocabulary for CSULB that was prescribed by campus consulting architect Edward Killingsworth. This building exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

Name: Psychology Building	
Year Built: 1970	
Architectural Style: Mid-Century Modern	
Architect: Gibbs and Gibbs	
Area(s) of Significance: Architecture and Design	
Applicable Criteria: C/3	
Status Code: 3B; 3CB	

Summary of Significance: The Psychology Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include simple massing and geometric forms, a flat roof, a simple material palette comprising Norman brick and painted concrete, and a dearth of applied ornament. While the building's design ascribes to the campus architectural vocabulary, it also exhibits a degree of creativity through a strong vertical orientation, complex massing comprising intersecting geometric volumes, tall exterior stair shafts with deep incisions, and glass curtain wall construction. These features provide the building with a level of articulation that renders it a notable example of Mid-Century Modern architecture as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

The building also satisfies Criterion C/3 for representing the work of master architects Hugh Gibbs and Donald Gibbs (Gibbs and Gibbs). Its design represents the thoughtful balance between Modern orthodoxy and creative license that so strongly defined the firm's body of work, and would eventually render partners Hugh Gibbs and Donald Gibbs masters of postwar Modern architecture. This building was also one of the firm's more notable institutional projects, and is widely cited in documentary sources as a pivotal commission in the context of its overall output.

	**Name:** Theatre Arts Building
	Year Built: 1972
	Architectural Style: New Formalist
	Architect: Frank Homolka and Associates
	Area(s) of Significance: Architecture and Design
	Applicable Criteria: C/3
	Status Code: 3B; 3CB

Summary of Significance: The Theatre Arts Building is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the New Formalist style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the New Formalist style that are expressed in the design of the subject building include its monumental scale and massing, its prevailing sense of symmetry and balance, a flat roof and wide eave, and an abstracted colonnade comprising full-height columnar supports. These features provide the building with a level of articulation that renders it a notable example of New Formalist architecture as applied to an institutional building, and is valuable to a study of this derivative of the postwar Modern architectural movement. Its design demonstrates how the essential tenants of Classical architecture were deftly blended together with those belying Modernism.

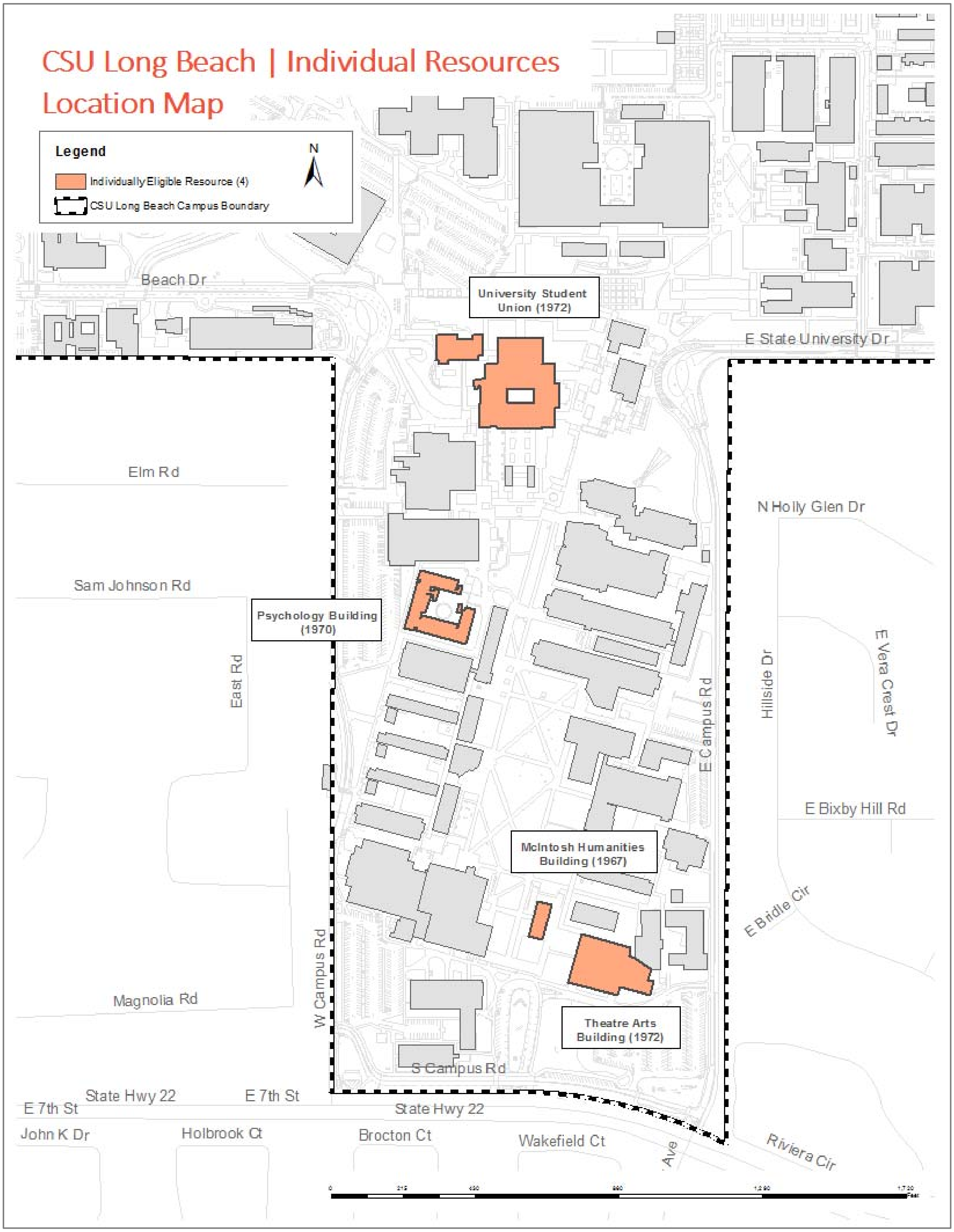
The building also satisfies Criterion C/3 for representing the work of master architect Frank Homolka and Associates. Its design exemplifies the firm's – and specifically Homolka's – keen ability to design buildings that amalgamate the formal tenants of Classical design and the structural expression and rationality associated with the Modern movement. This building was also one of the firm's more notable institutional projects, and is cited in documentary sources as a notable commission in the context of its overall output.

	**Name:** University Student Union
	Year Built: 1972
	Architectural Style: Mid-Century Modern
	Architect: Killingsworth-Brady and Associate
	Area(s) of Significance: Architecture and Design
	Applicable Criteria: C/3
	Status Code: 3B

Summary of Significance: The University Student Union is individually eligible for listing in the National Register and California Register under Criterion C/3.

The building satisfies this criterion because it embodies the distinctive characteristics of the Mid-Century Modern style as applied to an institutional setting, and specifically to the vernacular of the CSULB campus. Character-defining features of the Mid-Century Modern style that are expressed in the design of the subject building include expressed post-and-beam construction, simple geometric forms, a flat roof with wide projecting eaves, a simple material palette comprising Norman brick and painted concrete, the juxtaposition of solid walls against ribbons of glass, a dearth of ornament, and an integral relationship between building and site. Like the McIntosh Humanities Building anchors the Upper Campus to the south, this building anchors the Upper Campus to the north, and stands as a similarly bold architectural statement. It exhibits a level of articulation that renders it a notable example of the Mid-Century Modern style as applied to an institutional building, and is valuable to a study of the postwar Modern architectural movement.

The building also satisfies Criterion C/3 for representing the work of master architect Killingsworth-Brady and Associates. It is a successful example of how the firm– and particularly its namesake and principal, Edward Killingsworth – took the fundamental elements of its quintessential post-and-beam aesthetic, transposed them to a larger scale and an institutional context, and designed buildings that were just as aesthetically pleasing as they were functional. This building is significant as one of the firm's more notable institutional projects, and is widely cited in documentary sources as a pivotal commission in the context of its overall output.


CSU Long Beach | Individual Resources
Location Map
Legend
Individually Eligible Resource (4)
CSU Long Beach Campus Boundary
N
University Student Union (1972)
Psychology Building (1970)
McIntosh Humanities Building (1967)
Theatre Arts Building (1972)
Beach Dr
E State University Dr
Elm Rd
Sam Johnson Rd
East Rd
N Holly Glen Dr
Hillside Dr
E Vera Crest Dr
E Campus Rd
E Bixby Hill Rd
E Bridle Cir
W Campus Rd
Magnolia Rd
S Campus Rd
E 7th St
State Hwy 22
E 7th St
State Hwy 22
John K Dr
Holbrook Ct
Brocton Ct
Wakefield Ct
Ave
Riviera Cir

7. Recommendations for Further Study

The following is a list of recommendations related to continued research and evaluation of historic resources on the CSULB campus. These recommendations identify some additional areas of opportunity to be considered by the University, as time and resources permit. The recommendations listed herein were informed by the observations of the project team over the course of this survey.

- Commission a Cultural Landscape Report (CLR) to guide the future treatment of significant landscape features on the CSULB campus, and particularly those associated with the potential historic districts identified in this survey. The CLR should be prepared by a qualified professional meeting the *Secretary of the Interior's Professional Qualification Standards,* and should incorporate best professional practices as prescribed in NPS Preservation Brief No. 36: *Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes* (Birnbaum, 1994).
- Commission a separate study of public art on the CSULB campus. While many public art installations fall within the boundaries of the potential Upper Campus Historic District that was identified in this survey, a focused study specific to the history, significance, and future treatment of public art installations at CSULB is recommended to understand the full breadth of artistic endeavors that are represented on the campus. This study should be completed by a qualified art historian or other professional meeting the *Secretary of the Interior's Professional Qualification Standards.*

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Appendix C. Resumes

Architectural Resources Group

KATIE E. HORAK

Principal | Architectural Historian & Preservation Planner

Katie is a Los Angeles-area native and Principal in ARG's Los Angeles office. She has nearly twenty years experience in the field of historic resource management in both the public and private sectors. Katie is a recognized leader in the industry, bringing creative and innovative solutions to complex issues related to historic site documentation, management, and adaptive re-use. Katie brings expertise in policies related to the California Environmental Quality Act (CEQA), preservation tax incentives, Secretary of the Interior's Standards compliance, and issues surrounding recent-past resources and intangible heritage.

Relevant Project Experience

- University of California, San Diego, Humanities & Social Sciences Building Repair, San Diego, CA
- California State University Long Beach, Historic Preservation Consulting, Long Beach, CA
- Claremont McKenna College, Historical Resources Technical Report under CEQA, Claremont, CA
- Pomona College Master Plan EIR, Historical Resources Technical Report under CEQA, Claremont, CA
- University of California, San Diego, Campus-wide Historic Resources Survey, San Diego, CA
- University of Southern California, Historic Resources Survey, Los Angeles, CA
- City of Los Angeles, Historical Housing and Land Use Study, Los Angeles, CA
- Colony 29, Rehabilitation Study and Concept Design, Palm Springs, CA
- Ocotillo Lodge, Historic Paint Palette Study, Palm Springs, CA
- Inspiration Heights Historic District National Register Nomination, San Diego, CA
- Title Insurance and Trust Company Building, Rehabilitation, Seismic Upgrade, and Historic Preservation Certification Application for Federal Historic Tax Credits, Los Angeles, CA (ongoing)
- Santa Fe Railway Depot, Historic Preservation Certification Application for Federal Historic Tax Credits, Redlands, CA (ongoing)
- City Transfer and Storage Company Warehouse, Historic Preservation Certification Application for Federal Historic Tax Credits, Redlands, CA (ongoing)
- Harrower Laboratory and Clinic, Rehabilitation Study, Glendale, CA
- Lucas Museum of Narrative Art EIR, Historical Resources Technical Report, Los Angeles, CA
- The Factory at Robertson Lane, Historic Preservation Consulting and Technical Report under CEQA, West Hollywood, CA
- Founders Church of Religious Science, Paul R. Williams, National Register Nomination and HSR, Los Angeles, CA
- Former MCA Headquarters, Paul R. Williams, Beverly Hills Landmark Application, Beverly Hills, CA

Education

Master of Heritage Conservation, University of Southern California

University of Oregon, Eugene Historic Preservation Field School in Canova, Italy

Bachelor of Arts, Art (Painting/Drawing), Whitworth College, Spokane, Washington

Meets the *Secretary of the Interior's Professional Qualifications Standards* in Architectural History

Memberships

President-Elect, Docomomo US

Founding President, Docomomo US, Southern California Chapter

Los Angeles Conservancy

Society of Architectural Historians, Southern California Chapter

Los Angeles Headquarters Association (LAHQ)

Academic Involvement

Adjunct Assistant Professor, University of Southern California.

Current courses taught: *Introduction to Historic Site Documentation*, and *Advanced Documentation: Historic Resources Surveys*

Architectural Resources Group

ANDREW GOODRICH

AICP, Senior Associate | Architectural Historian & Preservation Planner

Andrew is an Architectural Historian and Preservation Planner in ARG's Los Angeles office, with a joint background in city planning and historic preservation and formal training in both fields. His academic and professional pursuits have led him to develop an interest in how public policy can be used to enliven the historic built environment. He also brings an understanding of urban landscapes and is versed in Geographic Information Systems (GIS) software. A Los Angeles-area native with a keen interest in the region and its history, Andrew has been practicing in the preservation planning field since 2008 and worked for various public and not-for-profit agencies prior to joining ARG. At ARG, he has managed and contributed to numerous historic resource surveys and historic context statements that have ranged in scale from entire cities, to college campuses, and down to individual neighborhoods. His experience also includes landmark nominations, historic property assessments, and rehabilitation incentives.

Relevant Project Experience

- City of San Gabriel Historic Context Statement, San Gabriel, CA
- California State University, Long Beach, Historic Preservation Consulting Services, Long Beach, CA
- California State University, San Bernardino, Master Plan Update, Historic Resources Evaluation Report, San Bernardino, CA
- University of California, Berkeley, Long Range Development Plan CEQA Technical Report, Berkeley, CA
- University of California, San Diego (La Jolla Campus), Campus-Wide Historic Context Statement, Historic Resources Survey and CEQA Technical Report, La Jolla, CA
- University of California, San Diego (Hillcrest Campus), Campus-Wide Historic Context Statement, Historic Resources Survey and CEQA Technical Report, San Diego, CA
- Pomona College, Historical Resources Technical Report for CEQA, Claremont, CA
- City of La Cañada Flintridge, Historic Resources Inventory Update, La Cañada Flintridge, CA
- City of Dana Point, Historic Resources Inventory Update and On-Call Historic Preservation Consulting Services, Dana Point, CA
- City of Santa Monica, Historic Resources Inventory (HRI) Update, Santa Monica, CA
- Community Redevelopment Agency of the City of Los Angeles (CRA-LA), Historic Resources Survey of the Hollywood Redevelopment Plan Area, Los Angeles, CA
- SurveyLA, Los Angeles Citywide Historic Resources Survey, Group 6 Surveys (Arleta-Pacoima, Mission Hills-Panorama City-North Hills), Group 7 Surveys (Boyle Heights, Wilshire), Group 8 Surveys (Northridge, Chatsworth-Porter Ranch), Group 10 Surveys (Central City)

Education

Master of Heritage Conservation, University of Southern California

Master of Planning, Concentration in Economic Development, University of Southern California

Bachelor of Arts, Urban Studies and Planning, University of California, San Diego

Meets the *Secretary of the Interior's Professional Qualifications Standards* in Architectural History and History

Memberships

American Institute of Certified Planners (AICP)

American Planning Association

Los Angeles Conservancy

Honors

Tau Sigma Delta, Honors Society for Architecture and Allied Arts

Pi Alpha Alpha, Honors Society for Public Affairs and Administration

Greta and Dean Wilkinson Fellow, School of Architecture, University of Southern California

Dean's Merit Scholar, Sol Price School of Public Policy, University of Southern California

APPENDIX F

Confidential Archaeological Resources Technical Report

Confidential

The Archaeological Resources Technical Report is confidential. To request a copy of the report, please contact CSULB-CommunityEngagement@csulb.edu.

APPENDIX G

Paleontological Resources Memorandum

MEMORANDUM

To: California State University, Long Beach

From: Peter Kloess, Ph.D., Michael Baker International

Date: August 7, 2023

Subject: California State University, Long Beach Master Plan Update – Paleontological Resources Memorandum

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1 INTRODUCTION

This document reports the results of paleontological resources sensitivity and impact analyses for the California State University, Long Beach Master Plan Update (proposed project). This memorandum first includes a project description including project location and setting, and proposed project work. Next, a description of the applicable federal, state, and local regulatory requirements followed by the environmental and geologic setting of the proposed project area are presented. This is followed by the archival research methods and results. The next section summarizes the results of the paleontological resources investigation and provides an impact analysis. The final section provides project mitigation and management recommendations.

1.1 Project Personnel

Peter Kloess, Ph.D., Paleontologist, has over 20 years of experience in paleontology, with seven years in paleontology mitigation as a Paleontologist and Project Coordinator. His experience includes public and private consultation, field monitoring, excavation, and laboratory research on projects across the western United States, predominantly in California. He has consulting experience with a range of projects, including utility, transmission, construction, transportation, monitoring, and surveys. Additionally, he also has experience recovering a diversity of fossils from project sites, such as invertebrates, small mammals and birds, large mammals, and dinosaurs. Dr. Kloess also has extensive experience in paleontological museum collections and lab settings, including experience as an assistant curator, co-leader and participant in excavations across California, Utah, New Mexico, and Montana, and as a specimen preparator. In addition to extensive field and curation work, Dr. Kloess has researched, written, and published research articles in scientific journals. He meets the Society of Vertebrate Paleontology Standards for Qualified Professional Paleontologist.

2 PROJECT DESCRIPTION

2.1 Overview of the Project

California State University, Long Beach (CSULB) is proposing a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth, a campus population, and physical development of the campus through the horizon year 2035 (Master Plan Update, proposed project, or project). The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs. The “project” that is analyzed in this Environmental Impact Report (EIR) includes specific development components identified in the Master Plan Update that are expected to be developed in the near-term (2-5 years), mid-term (6-10 years), and long-term (11 years or more).

2.2 Project Location

CSULB is located within the governmental jurisdictional boundary of the City of Long Beach, in southern Los Angeles County, California. The City of Long Beach is bordered by the cities of Paramount and Lakewood to the north; the Pacific Ocean to the south; the cities of Hawaiian Gardens, Cypress, and Los Alamitos, the unincorporated community of Rossmoor, and the city of Seal Beach in Orange County to the east; and the cities of Los Angeles, Carson, and Compton to the west. CSULB consists of two properties: the CSULB main campus and the Beachside Village property. Figure 2-1 shows the regional location of the CSULB main campus and the Beachside Village property.

The CSULB main campus encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west, as shown in Figure 2-2. The majority of the university's uses occur on the CSULB main campus, which comprises 84 buildings and eight colleges, totaling approximately 5.8 million gross square feet of buildings. Beachside Village, a CSU-owned student housing complex, encompasses approximately 5 acres and is located approximately 0.6 miles west of the CSULB main campus. Beachside Village is bounded by multi-family residential uses to the west and northwest, commercial uses to the north, east, and southeast, and California State Route 1 (i.e., Pacific Coast Highway) to the south and southwest.

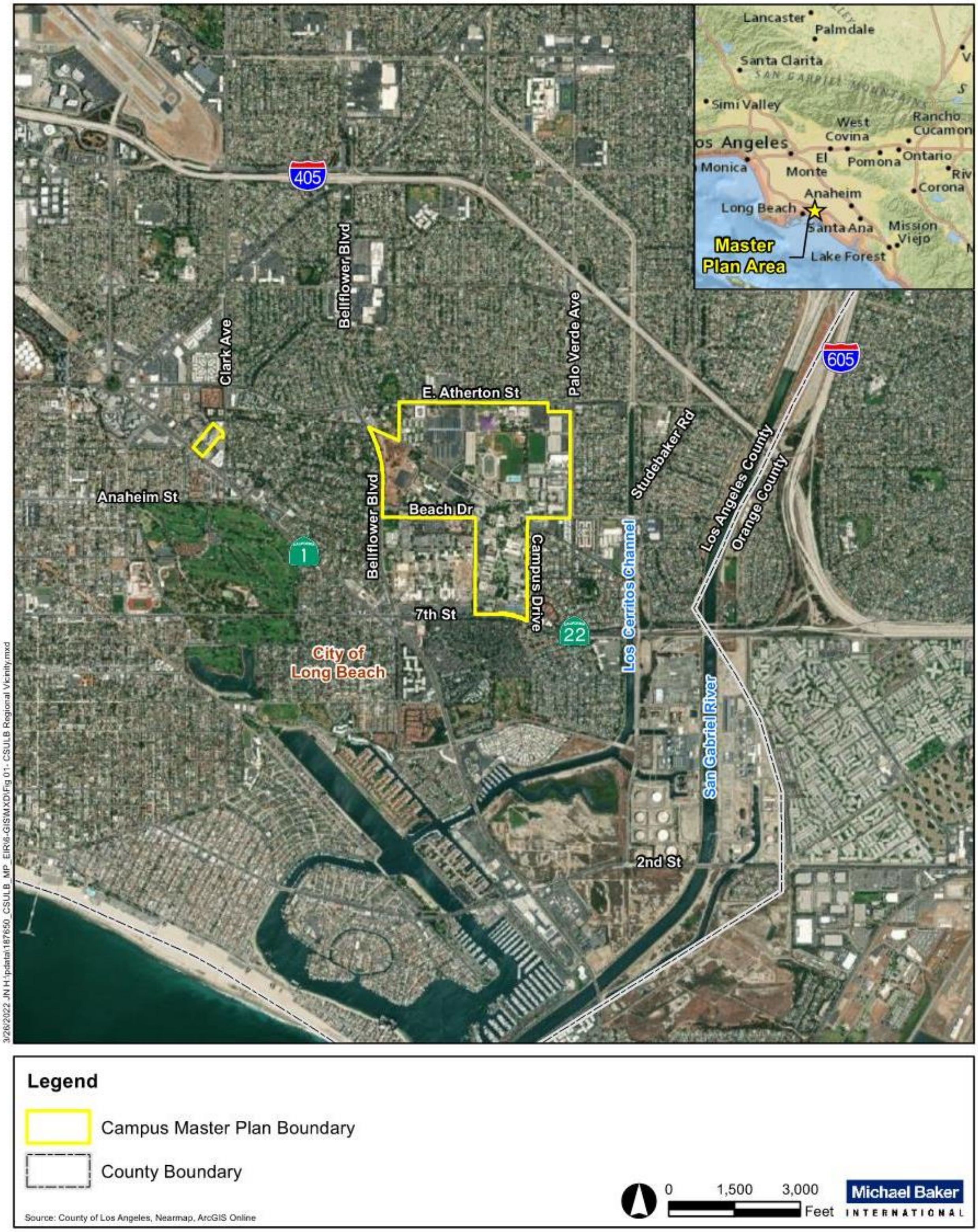

Figure 2-1 Regional Location Map

Figure 2-2 Project Location Map

2.3 Proposed Project Characteristics

The Master Plan Update establishes priority development projects to be implemented over the next decade and beyond. The primary strategies for implementing the new master plan include renovation of existing buildings (renovation), demolition and replacement of existing buildings in the same physical location (replacement), construction of new buildings (new construction), and leaving buildings in their existing location and configuration (building to remain). The Master Plan Update also identifies improvements to landscape and open space, sustainability and resiliency, and mobility and parking.

Campus Organization

The Master Plan Update organizes the CSULB main campus into five districts characterized by existing geography and development as well as desired connectivity, placemaking opportunities, and proposed programming. The five districts include the South District, Central District, East District, North District, and West District.

Proposed Master Plan Development

The Master Plan Update provides for planned improvements phased through the 2035 planning horizon. As previously discussed, development under the Master Plan Update would include renovation of existing buildings, demolition, and replacement of existing buildings in the same physical location, and construction of new buildings. Individual projects have been identified that are expected to be developed in the next 10 years and are referred to as near-term (2-5 years) and mid-term (6-10 years) projects. The individual projects were identified for possible implementation based on a variety of factors, such as funding, building age, consolidation of programming, etc. Of the individual development projects, it is estimated that 13 would be near-term and 17 would be mid-term. These projects, listed in Table 2-1, are analyzed in the EIR. For a description of the projects, refer to Table 2-11 in Chapter 2, Project.

Table 2.3-1: Proposed Near-Term and Mid-Term Projects Analyzed in this EIR

Near-Term Projects	Mid-Term Projects
Engineering Replacement Building	College of the Arts Replacement Building
New Parkside Housing Village	New 7th St. Community Outreach Facility
Faculty and Staff Housing	Jack Rose Track / Commencement Facilities
USU Renovation / Addition and Cafeteria Replacement	Walter Pyramid Renovation
Hillside College Renovations / Addition	Pedestrian/Bike Lane Improvements
Beachside Housing	Fine Arts 4 Renovation
Aquatics Center + Pool Renovation	Fine Arts 1 / 2 Renovation
Lecture Hall 150-151 Renovation	Liberal Arts 5 Renovation
Student Health Services Addition	Theater Arts Renovation
Corporation Yard Renovations	University Theatre Renovation
Microbiology Student Success Center Renovation	Baseball Field Conversion to Multi-Use Field
Friendship Walk Stairs Revitalization	Central Plant Decarbonization
Improved Campus Entrance and Gateway	Univ. Music Center Renovation/ Addition
	Nursing Building Renovation (CAPS)
	Engineering Tech Renovation
	Relocated Archery Field
	Redefining the Campus Quad

The Master Plan Update also includes a number of projects that are expected to be developed in the long-term (11 years or more). While these projects are identified in the Master Plan Update, they will not be discussed or analyzed in further detail in this EIR as it would be speculative to estimate project-level details for those projects at this time. Refer to the Master Plan Update for details on the long-term projects.

Construction

Construction of the planned improvements would occur in phases and would be overlapping through the 2035 planning horizon. The majority of construction activities are anticipated to occur during daytime hours, generally from 7:00 a.m. to 7:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. and 6:00 p.m. on Saturday and Sunday. It is anticipated that work outside of these hours may be required in order to maintain construction schedules and minimize any potential road detours. All construction activities would comply with Section 8.80.202 of the Long Beach Municipal Code regarding construction noise.

As previously discussed, the identified individual development projects have been categorized into types of proposed development and would typically be implemented in a similar manner (i.e., similar construction scenarios). For a list of the potential construction activities, see Table 2-15 in Chapter 2, Project Description, of the EIR.

Construction Staging

Construction staging and laydown areas for individual development projects will be determined during the preconstruction phase. Construction staging and laydown areas would generally be located in surface parking lots or within landscaped or lawn areas, as feasible, and would be selected based on availability of space within an individual project site, or proximity to the individual project site. Should construction staging and laydown areas outside of the boundaries of the individual project site be necessary, they would be fenced off and temporarily unavailable to park or recreate in. Access points to the campus would be maintained, and parking spaces and/or landscaped and lawn areas used for construction staging and laydown would be restored following construction activities.

3 REGULATORY SETTING

3.1 State

California Public Resources Code Section 5097.5

California Public Resources Code Section 5097.5 defines and details the unauthorized disturbance or removal of archaeological, paleontological, or historical resources located on public lands which is considered a misdemeanor violation:

> "A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

4 EXISTING CONDITIONS

This chapter considers the known geological setting of the CSULB main campus and Beachside Village property.

4.1 Environmental Setting

The CSULB main campus and Beachside Village property are located in coastal Los Angeles County, north of today's Port of Long Beach. Before the Port of Long Beach was dredged and modified in the late nineteenth through the middle twentieth centuries, the area was characterized by estuaries, marshes, and coastal mudflats. The CSULB main campus's location would have given inhabitants access to the rich coastal ecosystem of Alamitos Bay but protected them from storms that battered the ocean coast (Boxt 2021a; McCawley 1996). The Southern District of the main campus consists of a low hill that slopes downward towards Bouton Creek. The West, North, Central, and East Districts of the main campus consist of a relatively flat plain through which flows the now-channelized Bouton Creek. The area north and east of Bouton Creek is a former estuary.

4.2 Geologic Setting

California is divided into 11 geomorphic provinces, each defined by unique geologic and geomorphic characteristics. The CSULB main campus and Beachside Village property are located along the western flank of the Peninsular Ranges geomorphic province, distinguished by northwest-trending mountain ranges and valleys following the branching San Andreas fault. This geomorphic province also includes physio geographic features such as the Los Angeles Basin, the southern members of the Channel Islands, and the continental shelf (California Geological Survey 2002). The Peninsular Ranges province crosses several counties, as well as Baja California. The Pacific Ocean borders it to the west, the Transverse Ranges geomorphic province to the north, and the Colorado Desert geomorphic province to the east. The Peninsular Ranges batholith dominates the Peninsular Ranges.

The CSULB main campus and Beachside Village property are within the southwestern block of the actively subsiding Los Angeles Basin. This basin is bound by the Santa Monica and San Gabriel Mountains to the north, the Pacific Ocean to the west, the Santa Ana Mountains to the east, and partially by the San Joaquin Hills to the southeast (Yerkes et al. 1965).

The geology of the CSULB main campus and Beachside Village property have been mapped by C.W. Jennings (1962) at a scale of 1:250,000 and by Saucedo et al. (2016) at a scale of 1:100,000 (Figure 5-1). The mapped geological units at the surface of the CSULB main campus and immediately adjacent areas include young alluvial deposits (Qya_2) of Holocene to late Pleistocene age (present to 126,000 years old). At unknown depths beneath these deposits, old shallow marine deposits (Qom) of late to middle Pleistocene age (126,000 to 774,000 years old) underlie the CSULB property and immediately adjacent areas. Although young alluvial deposits of this region can be as young as Holocene in age, a period that overlaps with archaeological concern, these sediments can also range as old as late Pleistocene in age and possibly contain significant fossil resources. Old shallow marine deposits (Qom) of late to middle Pleistocene age (126,000 to 774,000 years old) have also been mapped at the surface of the Beachside Village property, and generally south of Bouton Creek of the CSULB main campus. Sedimentary deposits of Pleistocene age in southern California can possibly contain significant fossil resources.

Stratigraphic cross-sections from previous scientific excavations within the CSULB main campus identified undisturbed paleosols (i.e., distinct buried soil deposits or strata) at a minimum depth of approximately 5 feet; however, a variability of the depth of undisturbed paleosols in the stratigraphic cross-sections across campus was observed which suggests undisturbed paleosols could be found at a shallower depth (Boxt 2021b). Geotechnical reports have also discovered through coring efforts that artificial fill lies immediately at the surface of the main campus and that native sedimentary layers can be found at varying depths of excavation. Some coring efforts found native sediments as shallow as less than 1 feet below current surface levels (Moreno and Soltis, 2018), while other explorations found native sedimentary layers as deep as 20 feet below ground surface (He and Soltis, 2022). Most geotechnical efforts encountered subsurface exposures of native sedimentary layers between 4 and 6 feet below surface (He and Soltis 2019, Soltis 2021, He et al. 2022). Geologic formations of similar ages in nearby portions of the Los Angeles Basin (e.g., Palos Verdes Sand and San Pedro Sand) have yielded significant marine and terrestrial fossils, including bones, teeth, shells, plant material, and microscopic organisms (Kennedy 1975). Additional examples of vertebrate fossils from these geologic formations include fishes, birds, cetaceans (whales and dolphins), carnivores, rodents, ungulates (hooved mammals), proboscideans (e.g., elephants and mammoths), turtles, and frogs (Langenwalter 1975).

Previous archaeological work has demonstrated relatively uniform stratigraphy across most of the CSULB main campus north of Bouton Creek. Stratum 1 through 4 consists of fill deposit, a culturally sterile alluvial layer deposited by flooding of Bouton Creek, a single major flood deposit, and an archaeological layer. Based on reviews of previous geotechnical and archaeological studies conducted for the campus, it is likely that Stratum 5 contains native sedimentary layers, typically located between 4 and 6 feet below surface, which have the potential for paleontological resources.

The CSULB main campus and Beachside Village property are within the Los Angeles Plain ecoregion, including nearly level floodplains and terraces and gently sloping alluvial fans. Most of the region is covered by urban and residential cover but historic vegetation includes California sagebrush, California buckwheat, coast live oak, chamise chaparral, and annual grasslands. The region's climate is extensively modified by oceanic influence, the soil temperatures are thermic, and the soil moisture regime is xeric (Griffith et al. 2016).

Soils on the main campus northeast of Bouton Creek, comprising all of the East and North Districts and parts of the West and Central Districts, have been mapped as Urban land-Biscailuz-Hueneme, drained complex (Figure 5-2), which is made of 50% urban soils, followed by Oxyaquic Haploxerolls and Oxyaquic Xerofluvents (Natural Resources Conservation Service 2022). These soils are composed of somewhat poorly draining loam and fine sandy loam and do not have groundwater within 100 to 150 centimeters (39 to 59 inches) of the soil surface for 20 or more consecutive days of the year (United States Department of Agriculture 2010).

Soils on the main campus southwest of Bouton Creek, comprising all of the South District and the southwestern parts of the Central and West Districts, as well as Beachside Village, have been mapped as Urban land-Thums-Windfetch complex, which is made of 50% urban soils, followed by Calcic Pachic Argixerolls and Calcic Argixerolls (Natural Resources Conservation Service

2022). These soils are composed of clay loams and clays within 90 to 150 centimeters (35 to 59 inches) of the soil surface (United States Department of Agriculture 2010).

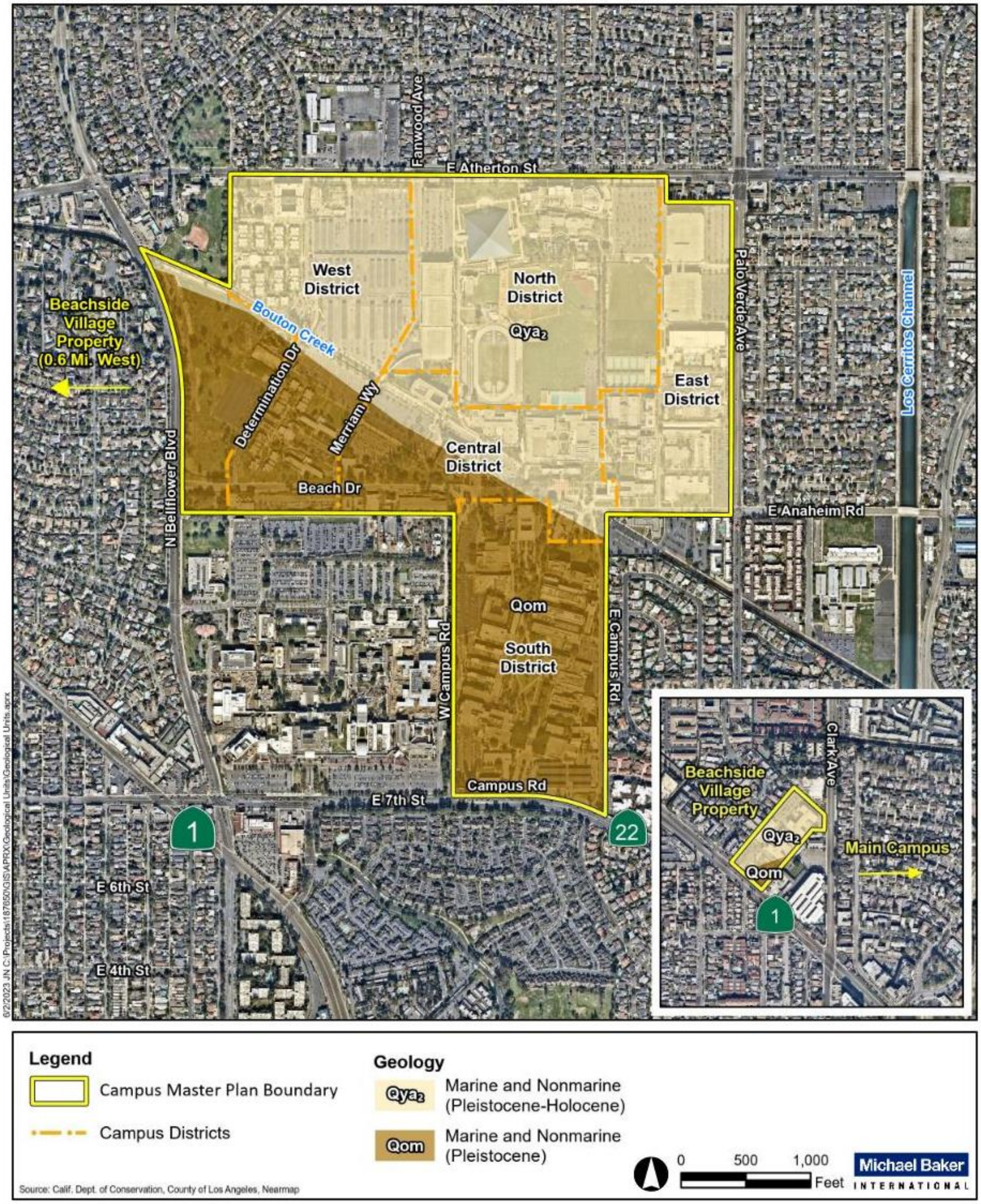

Figure 5-1 Campus Districts Overlaid on Geologic Map

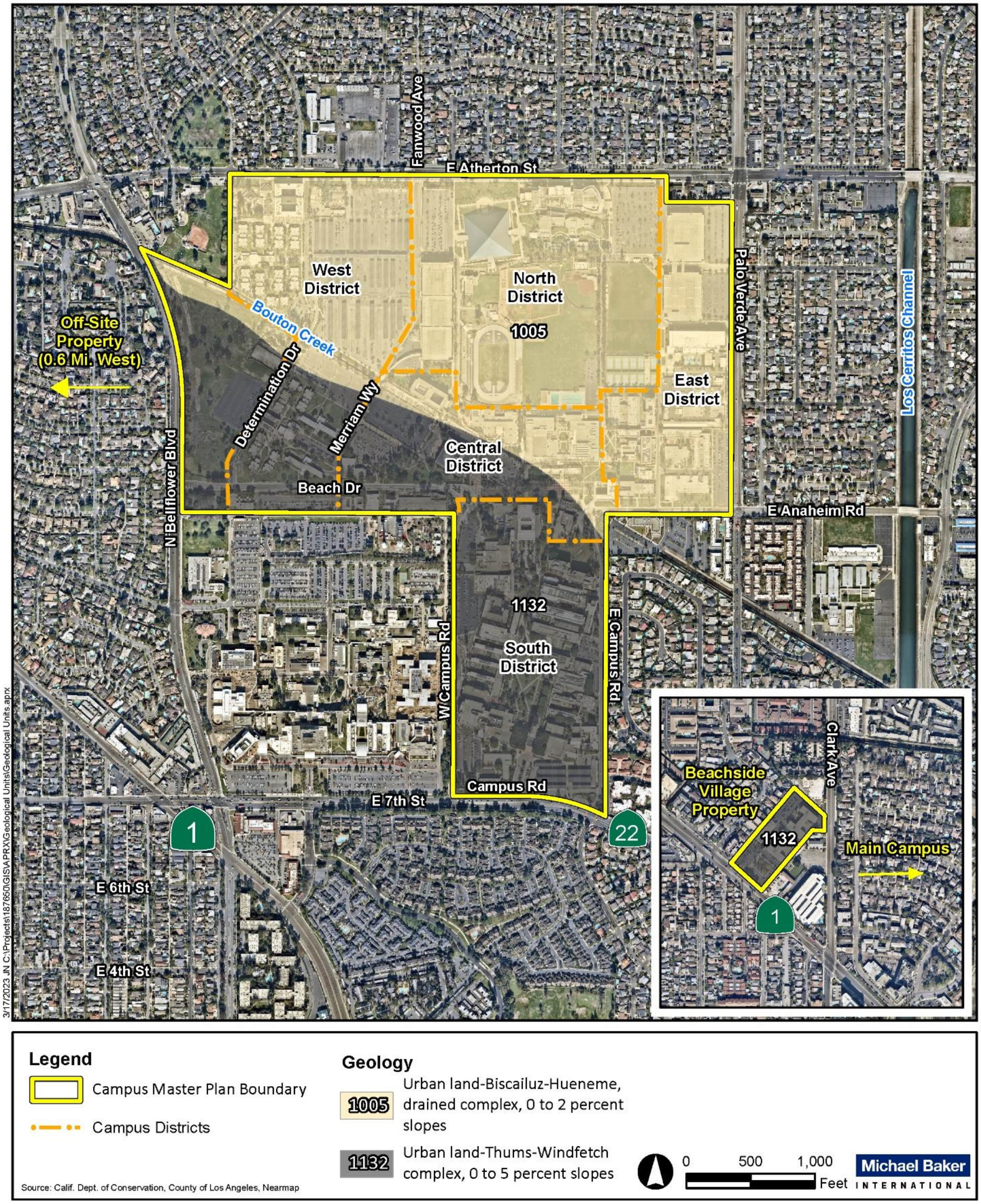

Figure 5-2 Campus Districts Overlaid on USDA Soils Map

5 ARCHIVAL RESEARCH

Archival research included a consultation of documented paleontological localities held by the Natural History Museum of Los Angeles County (NHMLAC). At the request of Michael Baker International, NHMLAC staff searched its holdings for information regarding documented paleontological resources. Michael Baker International staff supplemented the information received from the NHMLAC with data from museum holdings documented in relevant online databases and a review of the scientific literature.

5.1 Natural History Museum of Los Angeles County

On March 2, 2022, Michael Baker International staff requested the NHMLAC search its holdings for documented paleontological resources within and near the CSULB campus. The NHMLAC responded in a letter dated March 15, 2022 (Appendix A). The records search showed no previously identified fossil localities within the CSULB campus. However, five fossil localities from the same sedimentary deposits as those found within the CSULB campus occurred, either at the surface or at depth, within 4 miles of the campus. An additional locality from similar sedimentary deposits to those observed in the CSULB campus occurred an unknown distance from the campus though within the City of Long Beach (Table 5-1).

Table 5-1: Previously Documented NHMLAC Fossil Localities

Collection Number	Taxa	Formation	Chronological Unit	Distance to CSULB Campus
LACM IP 4737, 4854, 4865, 4568	Invertebrates: decapods (crabs, lobsters, shrimp, etc.), sand dollars, gastropods (snails), bivalves (clams, oysters, mussels, etc.), trace fossils	Palos Verdes Sand	Pleistocene	Within 1 Mile
LACM IP 339, 2686	Invertebrates: limpets, gastropods (snails), clams, oysters	Unknown	Pleistocene	Within 2 Miles
LACM VP 7493	Vertebrates: camels	Lakewood Formation	Pleistocene	Within 2 Miles
LACM VP 7739	Invertebrates: snails, clams, barnacles, crabs, urchins, tusk shells Vertebrates: sharks, eels, croakers, flounders, guitarfish, toadfish, perch, rays, flatfish, sole, skates, barracudas	Coastal deposits	Late Pleistocene	Within 3 Miles
LACM VP 3660	Vertebrates: mammoths	Unknown	Pleistocene	Within 4 Miles
LACM VP 3260	Vertebrates: bison	Unknown	Pleistocene	Unknown

Notes: LACM IP = Natural History Museum of Los Angeles County Invertebrate Paleontology Department Locality
LACM VP = Natural History Museum of Los Angeles County Vertebrate Paleontology Department Locality
Source: Natural History Museum of Los Angeles County

5.2 Online Museum Databases

Michael Baker International conducted supplemental paleontological records searches within 3 miles of the CSULB campus using the following websites:

- University of California Museum of Paleontology Locality Search (University of California Museum of Paleontology 2022)
- San Diego Natural History Museum Collection Database (San Diego Natural History Museum 2022)
- The Paleobiology Database, developed by the Department of Geoscience, University of Wisconsin, Madison (Paleobiology Database 2022)

While the databases showed no previously identified fossil localities within the CSULB campus itself, both the University of California Museum of Paleontology and Paleobiology Database document three localities within 3 miles of the campus (Table 5-2).

Table 5-2: Previously Recorded Paleontological Resources Located Within 3 Miles of the CSULB Campus Documented in Online Museum Databases

Collection	Taxa	Formation	Chronological Unit
UCMP	Unspecified	Palos Verdes Sand	Pleistocene
PBDB	Snails, scallops, clams, oysters, tusk shells, barnacles, crabs, sand dollars, polychaete worms	Palos Verdes Sand	Pleistocene
PBDB	Scallops, snails, clams	San Pedro	Early Pleistocene
PBDB	Sharks, rays, bony fish, clams	Unknown	Late Pleistocene

Notes: UCMP = University of California Museum of Paleontology
PBDB = Paleobiology Database
Source: UCMP 2022; PBDB 2022

5.3 Review of Scientific Literature

Previous paleontological resources described in the scientific literature have been identified from similar sediments to those found underlying the CSULB main campus. Gastropod, bivalve, scaphopod, crustacean, and foraminifer fossils collected from Signal Hill, less than 3 miles northeast of the CSULB main campus, and Long Beach City College, approximately 3 miles north of the CSULB main campus, indicate Pleistocene sediments in this region were deposited in cool, shallow waters (DeLong 1941, McDougall et al. 2012). Pleistocene marine deposits from other regions within Long Beach and the nearby Palos Verdes Peninsula have further yielded marine and terrestrial mammals, seabirds, reptiles, and fish (Woodring et al. 1946, Jefferson 1991).

6 PALEONTOLOGICAL SENSITIVITY ANALYSIS

Per mitigation impact guidelines set forth by the Society of Vertebrate Paleontology (SVP 2010), due to the fossil sensitivity of the rock formations present within the CSULB campus (alluvium of Holocene to late Pleistocene age and shallow marine deposits of late to middle Pleistocene age), there is a high potential to disturb paleontological resources within undisturbed geologic contexts (i.e., undisturbed bedrock or subsurface geologic deposits in previously undisturbed areas) on the CSULB campus. No paleontological resources are documented within the CSULB campus, but significant vertebrate fossil localities have been recovered from geologic formations of similar age and depositional environments within 4 miles of the CSULB campus. Multiple Pleistocene-aged invertebrate fossil localities have also been recovered from these deposits within 4 miles of the CSULB campus (see Tables 5-1 and 5-2). Due to the vertebrate and invertebrate fossils found in geologic units similar to those underlying the CSULB main campus, the rock units present underlying the campus have a high sensitivity for paleontological resources based on the SVP (2010) guidelines.

7 THRESHOLDS OF SIGNIFICANCE

The significance thresholds used to evaluate the impacts of the Master Plan Update related to geological (paleontological) resources are based on Appendix G of the CEQA Guidelines.

Based on Appendix G, a project would have a significant impact related to paleontological resources if it would:

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature pursuant to CEQA Guidelines Appendix G?

8 IMPACT ANALYSIS

GEO-1 Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature pursuant to CEQA Guidelines Appendix G?

Program-Level Analysis for Master Plan Update

Construction Impacts

Less than Significant with Mitigation. As documented above, there are no documented fossil localities within the CSULB campus. However, due to the fossil sensitivity of the rock formations present within the CSULB property (alluvium of Holocene to late Pleistocene age and shallow marine deposits of late to middle Pleistocene age) and prior records of Pleistocene age vertebrate and invertebrate fossils found throughout the region, proposed development under the Master Plan Update has a high potential to disturb paleontological resources within undisturbed alluvium (older than 5,000 years; SVP 2010) and geologic contexts (i.e., undisturbed bedrock or subsurface geologic deposits in previously undisturbed areas).

During construction of the improvements associated with the Master Plan Update, ground-disturbing activities would occur throughout various locations on the CSULB campus. Ground disturbance refers to activities that would impact subsurface geologic deposits, such as grading, excavation, boring, drilling, and trenching. All improvements implemented pursuant to the Master Plan Update would be designed and constructed pursuant to the CSU Seismic Requirements. Per the CSU Seismic Requirements, site-specific surface conditions are to be determined for the building/facility site by a geotechnical engineer as part of a project's development. This could include geotechnical investigations for development on the campus that would involve expanded footprints or deeper foundations.

Due to the fossil sensitivity of the rock formations present within the CSULB property, construction of individual development projects in undisturbed geologic contexts (i.e., undisturbed bedrock or subsurface geologic deposits in previously undisturbed areas) may result in significant impacts to paleontological resources. This includes renovation projects that would involve additions, replacement projects that would involve expanded footprints or deeper foundations, and new projects. Impacts to paleontological resources would be reduced to a less than significant level with the implementation of the following mitigation measures.

If a project would require ground-disturbing activities, Mitigation Measure PALEO-1 would be required. Mitigation Measure PALEO-1 would require CSULB to retain a SVP-qualified paleontologist to review the proposed scope of work for a project requiring ground-disturbing activities, excavation plans, and geotechnical studies or borings, to determine if project excavations have the potential to impact paleontological resources. If the qualified paleontologist determines that a project would not impact paleontological resources, then no further work is necessary. However, if the qualified paleontologist determines that the proposed scope of work is found to not meet the SVP Standards or the geotechnical investigation identifies medium- to high-potential to encounter undisturbed geologic contexts, the qualified paleontologist, in consultation with the CSULB, shall include recommendations for the project, including paleontological monitoring in accordance with Mitigation Measure PALEO-2 and worker environmental awareness training in accordance with Mitigation Measure PALEO-4.

Mitigation Measure PALEO-2 would include paleontological monitoring and provides directions for full- or part-time monitoring, provides guidance in the event fossils are discovered, including redirecting work and assessing the significance of the find. If the qualified paleontologist determines that the find is significant in accordance with SVP standards, then Mitigation Measure PALEO-3 would apply. If any find is determined not to be significant, then construction work could proceed.

If the fossils are determined to be significant, then Mitigation Measure PALEO-3 would require an SVP qualified paleontologist to prepare and implement a data recovery plan that includes cleaning, identifying, cataloging, and curating significant finds. The data recovery plan would include preparation of a report and a letter of acceptance from the curation institution.

Mitigation Measure PALEO-4 would require, at the discretion of the qualified paleontologist, that a paleontological sensitivity training be given to all construction workers associated with ground-disturbing activities prior to the beginning of construction that could be administered along with other environmental awareness programs for the same project.

Mitigation Measures PALEO-1 through PALEO-4 are designed to identify and protect fossils during construction and would reduce impacts to these resources, if any, to a less than significant level.

Operational Impacts

No Impact. Following construction for all improvements implemented pursuant to the Master Plan Update, no additional ground disturbance would occur which would have the potential to impact unknown, buried paleontological resources. As such, no impacts associated with operation of the Master Plan Update would occur.

Project-Level Analysis for Identified Individual Development Projects

Construction Impacts

Less than Significant with Mitigation. As documented above, there are no documented fossil localities within the CSULB campus. However, undisturbed paleosols on campus have been previously identified at a minimum depth of approximately 5 feet; a variability of the depth of undisturbed paleosols in the stratigraphic cross-sections observed across campus suggests undisturbed paleosols could be found at a shallower depth.

Due to the fossil sensitivity of the rock formations present within the CSULB property (alluvium of Holocene to late Pleistocene age and shallow marine deposits of late to middle Pleistocene age), construction of individual development projects that require ground-disturbing activities in undisturbed geologic contexts (i.e., undisturbed bedrock or subsurface geologic deposits in previously undisturbed areas) have a high potential to disturb paleontological resources within undisturbed geologic contexts. These projects include renovation projects that would involve additions, replacement projects that would involve expanded footprints or deeper foundations, and new projects. These types of projects may require excavation for foundations that may reach undisturbed geologic contexts. Renovation projects that would involve additions include the following: USU Renovation/Addition and Cafeteria Replacement, Hillside College Renovations/Addition, Jack Rose Track/Commencement Facilities, Student Health Services Addition, Corporation Yard Renovations, Friendship Walk Stairs Revitalization, and University

Music Center Renovation/Addition. Replacement projects that may involve larger footprints or deeper foundations include the following: Engineering Replacement Building, New Parkside Housing Village, Aquatics Center and Pool Renovation, and College of the Arts Replacement Building. New facility projects include the following: Faculty and Staff Housing and New 7th St. Community Outreach Facility.

As discussed above, all improvements implemented pursuant to the Master Plan Update would be designed and constructed pursuant to the CSU Seismic Requirements. Per the CSU Seismic Requirements, site-specific surface conditions are to be determined for the building/facility site by a geotechnical engineer as part of a project's development. This could include geotechnical investigations for development on the campus that would involve expanded footprints or deeper foundations. Due to the fossil sensitivity of the rock formations present within the CSULB property, construction of the aforementioned individual development projects may result in significant impacts to paleontological resources. Thus, Mitigation Measures PALEO-1 through PALEO-4 would be required. Implementation of Mitigation Measures PALEO-1 through PALEO-4 are designed to identify and protect fossils during project construction, and would reduce impacts to these resources, if any, to a less than significant level.

Operational Impacts

No Impact. Following construction for all improvements implemented pursuant to the Master Plan Update, no additional ground disturbance would occur which would have the potential to impact unknown, buried paleontological resources. As such, no impacts associated with operation of the Master Plan Update would occur.

9 RECOMMENDATIONS

The following are measures recommended to reduce impacts to paleontological resources:

PALEO-1: Initial Project Review

Prior to the commencement of any ground-disturbing activities that would impact native soils (including, but not limited to grading, boring, excavating, digging, trenching, rig anchor installation, drilling, tunneling, auguring, and blasting) at a depth of 4 to 6 feet below ground surface or more, CSULB shall consult with a Society of Vertebrate Paleontology (SVP)-qualified paleontologist. The qualified paleontologist shall review:

- The proposed scope of work;
- Excavation plans against the data and the analysis in this memorandum; and
- Any available geotechnical studies or boring logs.

The paleontologist shall determine to what level the proposed project excavations have the potential to impact paleontological resources. Any geotechnical boring, potholing, or other project-specific exploratory ground disturbance shall be monitored at the qualified paleontologist's discretion.

If the paleontologist determines that the project will not impact paleontological resources:

- Mitigation Measures PALEO-2 and PALEO-3 shall not apply.

If the paleontologist determines the proposed scope of work is found to not meet the SVP Standards or the geotechnical investigation identifies medium- to high-potential to encounter undisturbed geologic contexts, the qualified paleontologist, in consultation with CSULB, shall include recommendations for the project.

Recommendations can include:

- Paleontological monitoring by a qualified paleontologist in accordance with Mitigation Measure PALEO-2; and
- Worker environmental awareness training in accordance with Mitigation Measure PALEO-4.

PALEO-2: Paleontological Monitoring

As determined by the Society of Vertebrate Standards (SVP)-qualified paleontologist in consultation with CSULB, paleontological monitoring shall be required for the following types of projects:

- Found not to meet the SVP Standards;
- The geotechnical investigation identifies medium- to high-potential to encounter undisturbed geologic contexts; or
- Ground-disturbing construction activities (including, but not limited to grading, boring, excavating, digging, trenching, rig anchor installation, drilling, tunneling, auguring, and blasting) into native Pleistocene-age soil and bedrock at a depth of 4 feet or greater below ground surface are required.

At the discretion of the qualified paleontologist, the level of monitoring may range from full-time or part-time (spot-check), based on the qualified paleontologist's review of plans and relevant documentation as well as on-site observations.

- If no significant fossils are recovered after 50 percent of ground-disturbing activities has been completed, full-time monitoring may be modified to weekly spot-check monitoring.
- If it is determined during the course of ground-disturbing activities that project excavations are located within fill or previously disturbed soils, or that the sensitivity for significant paleontological resources is otherwise low, monitoring may be reduced or suspended.

The qualified paleontologist shall attend preconstruction meetings, as deemed necessary by the paleontologist in consultation with CSULB, and manage the paleontological monitor(s) if the qualified paleontologist is not doing the monitoring. The paleontological monitor shall maintain logs and provide a final summary report of all ground-disturbing activities monitored with the potential to disturb paleontological resources.

In the event that fossils are discovered during grading at any depth, the following shall be required:

- The on-site construction supervisor shall be notified immediately and shall redirect work away from the location of the discovery.
- The contractor shall notify CSULB and consult with the qualified paleontologist to assess the significance of the find in accordance with SVP Standards.

If any find is determined to be significant, appropriate avoidance measures recommended by the qualified paleontologist and approved by CSULB shall be followed. If avoidance is unnecessary or infeasible, then Mitigation Measure PALEO-3 shall be implemented. The recommendations of the paleontologist shall be implemented with respect to the evaluation and recovery of fossils, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the fossil discovery.

If any find is determined not to be significant, then work shall proceed and Mitigation Measure PALEO-3 would not apply.

PALEO-3: Data Recovery Plan

If the fossils are determined to be significant, then the Society of Vertebrate Paleontology qualified paleontologist shall prepare and implement a data recovery plan. The plan shall:

- Incorporate resource context
- Incorporate appropriate field methods for data collection depending on the type of fossils found; and
- Detail how the fossils will be prepared, cleaned, identified, catalogued, temporarily housed, and permanently curated with an appropriate institution with a research interest in the materials (which may include the Natural History Museum of Los Angeles County).

The qualified paleontologist shall ensure that curation of fossils is completed in consultation with CSULB. A letter of acceptance from the curation institution shall be submitted to CSULB.

Ground-disturbing construction activities may commence once excavations are completed in accordance with the data recovery plan and to the satisfaction of CSULB in consultation with the qualified paleontologist. However, the data recovery work shall not be considered complete until excavations and associated analyses are completed and a final report is prepared. The report shall be completed and presented to CSULB for comment within 18 months of the completion of excavations.

PALEO-4: Worker Environmental Awareness Program

As determined by the Society of Vertebrate Paleontology (SVP)-qualified paleontologist in consultation with CSULB, and prior to the beginning of the ground-disturbing activities (including, but not limited to grading, boring, excavating, digging, trenching, rig anchor installation, drilling, tunneling, auguring, and blasting) by the construction crew, the construction crew associated with ground-disturbing activities shall be informed on how to identify paleontological localities, such as fossils, and of the regulatory protections afforded those resources. The crew shall also be informed of procedures relating to the discovery of unanticipated paleontological resources. The crew shall be cautioned not to collect fossils, and directed to inform a construction supervisor and the onsite paleontological monitor, if available, in the event that paleontological resources are discovered during the course of construction.

The initial training shall be conducted by the on-site paleontological monitor and can be incorporated into the project’s construction safety training. A supplemental briefing shall be provided to all new construction personnel that are associated with ground-disturbing activities prior to their commencement of ground-disturbing activities, and may consist of reviewing presentation slides or viewing a recording.

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Michael Baker
INTERNATIONAL

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APPENDIX A: PALEONTOLOGICAL RECORDS SEARCH RESULTS

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Office: 213.627.8645

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

March 15, 2022

Michael Baker International

Attn: Marc Beherec

re: Paleontological resources for the CSULB Master Plan EIR, 187650

Dear Marc:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the CSULB Master Plan EIR project area as outlined on the portion of the Los Alamitos USGS topographic quadrangle map that you sent to me via e-mail on March 2, 2022. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

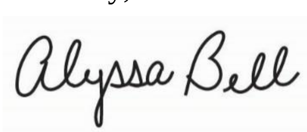
Locality Number	**Location**	**Formation**	**Taxa**	**Depth**
LACM IP 4737, 4854, 4865, 4568	Bluff on north side of the Stonebrook Apartment complex on the east side of Pacific Coast Hig highway; between Seventh and Colorado Streets; city of Long Beach	Palos Verdes Sand	Decapoda, sand dollar (*Dendraster*), gastropods (Balcis, Californiconus, *Calliostoma,* Cerithideopsid, *Chlorostoma, Crucinulum, Euclia, Hirtoscala, Turbonilla*), ichnofossils (*Helicotaphrichnus*), bivalves (*Coanicardita*,Crepidula, Leukoma, Siliqua, *Tellina*), (*Crucinulum*), and others	Surface
LACM IP 339, 2686	Recreation Park; Long Beach	Unknown formation (Pleistocene)	Key-hole limpet (*Diodora*), gastropod (*Progabbia*),clam (*Nuttalia*), oyster (*Ostrea*)	Unknown
LACM VP 3260	Long Beach (more specific locality not available)	Unknown formation (Pleistocene)	Bison (*Bison*)	Unknown
LACM VP 7493	30 yards south of Pacific Coast Highway & 10 yards west of Grand	Lakewood Formation	Camel family (Camelidae)	8.5 feet bgs

	Avenue; Long Beach			
LACM VP 7739	Bluff Park (on the beach adjacent to the eastern half of the southern edge of the parking lot); Long Beach	Late Pleistocene* coastal deposits (dark gray massive sandy silt)	Invertebrates (snails; clams; tusk shells; barnacles; crabs; sea urchins); requiem shark (*Carcharhinus*), Spotted cusk eel (*Chilara*), croakers (*Genyonemus, Seriphus*), school shark (*Galeorhinus*), righteye flounder (*Glyptocephalus*), guitarfish (*Rhinobatos*), toadfish (*Porichthys*), perch (*Cymatogaster, Damalichthys*), bullhead shark (*Heterodontus*), ray (Dasyatis, *Myliobatus, Raja*), surfperch (*Embiotoca, Hyperprosopon, Micrometrus*), flatfish (*Citharichthys*), leopard shark (*Triakis*), slender sole (*Lyopsetta*), dogfish shark (*Squalus*), skate (*Squatina*), barracuda (*Sphyraena*)	56 feet bgs
LACM VP 3660	Cover St & Pixie Ave; Lakewood	Unknown formation (Pleistocene)	Mammoth (*Mammuthus*)	19 feet bgs

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface
** Locality is 25 feet below carbon-14 accelerator mass spectrometry date of 43180 +/-710 years*

This records search covers only the records of the NHMLA. It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice

APPENDIX H

Noise and Vibration Calculations

Site Number: NM-1-SFH			
Recorded By: Tina Yuan, Darshan Shivaiah			
Job Number: 187650			
Date: 11/02/2022			
Time: 10:06 a.m.			
Location: Northeast corner of Palo Verde Avenue and East Anaheim Drive.			
Source of Peak Noise: Traffic along Palo Verde Avenue and East Anaheim Drive.			
Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
63.8	83.0	49.4	99.2

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 10:05:28
End Time:		11/02/2022 10:15:28
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

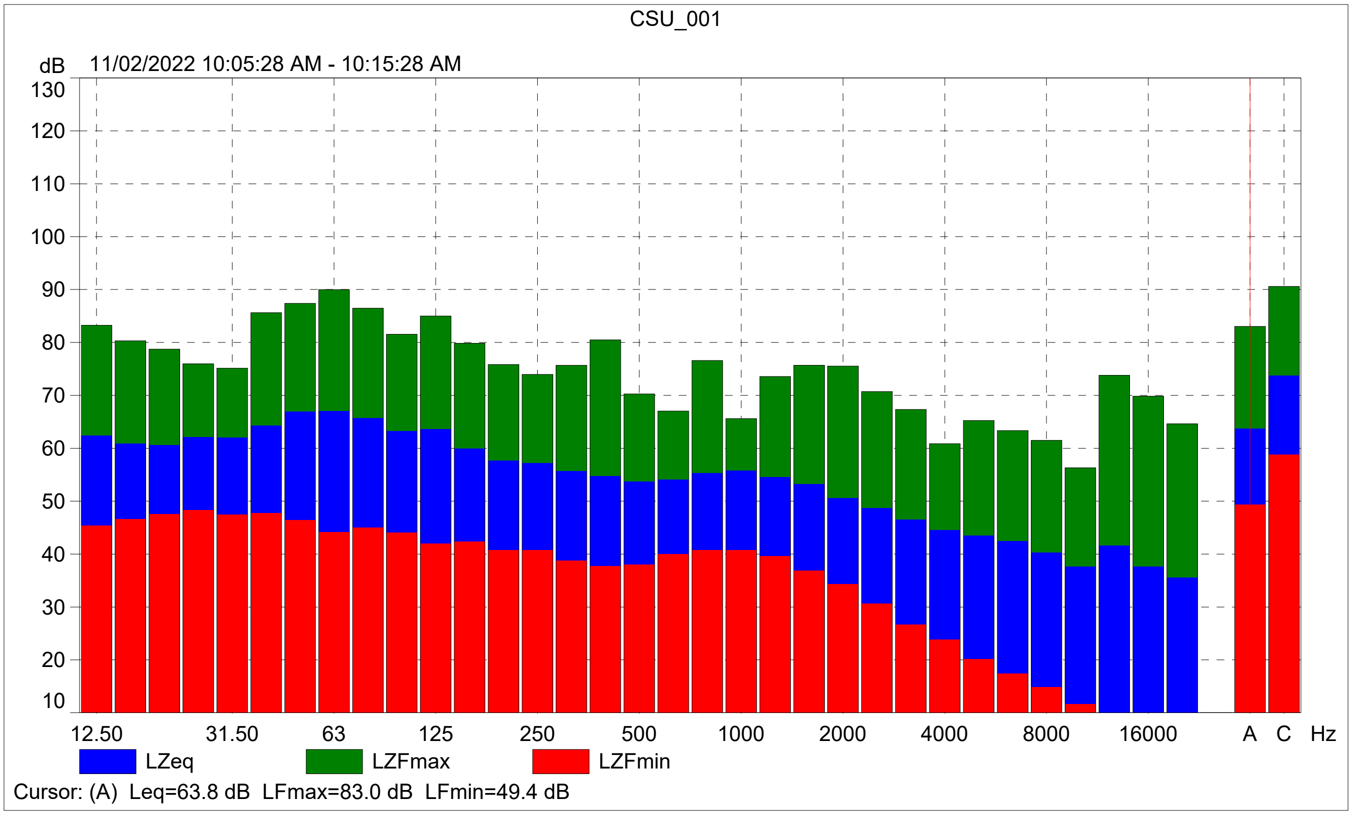
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

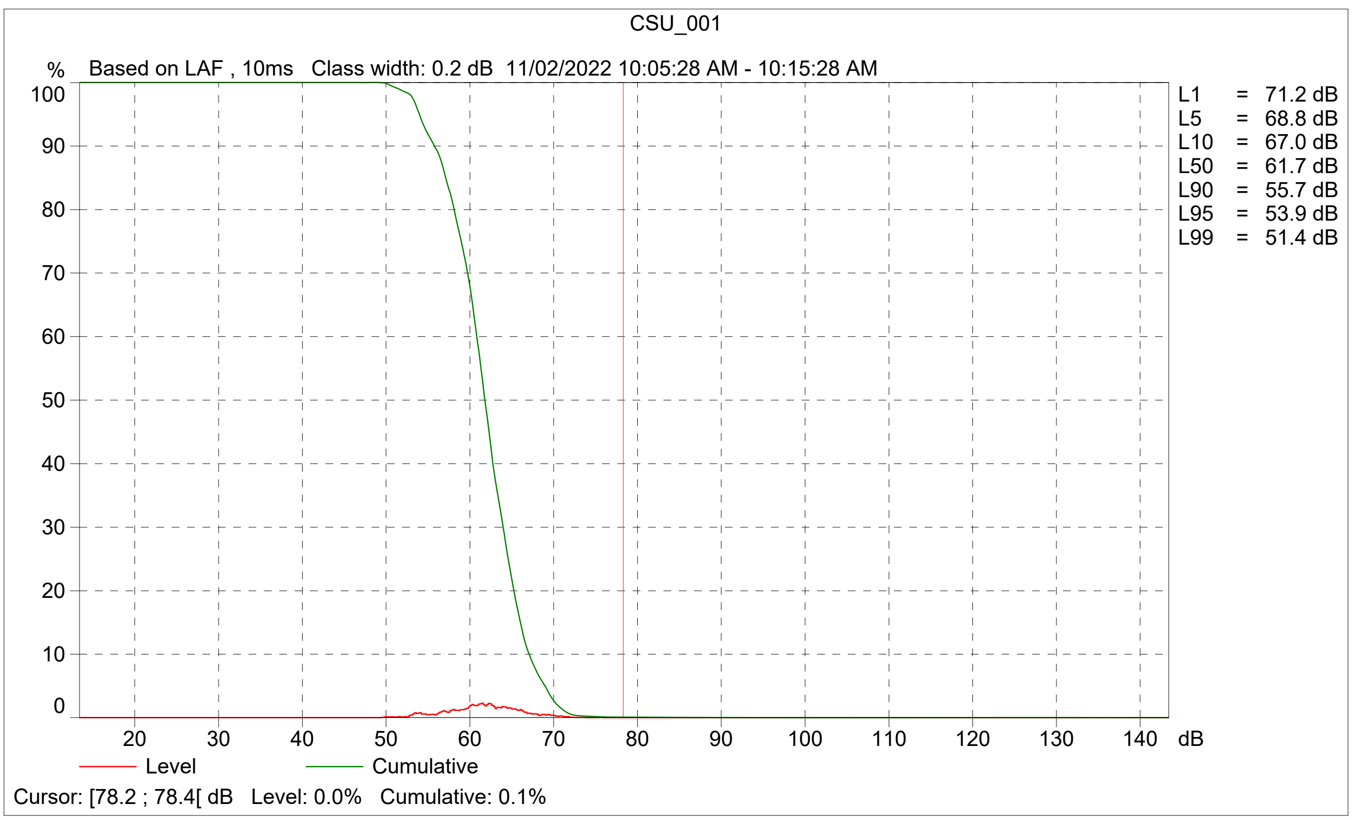
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_001

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	63.8	83.0	49.4
Time	10:05:28 AM	10:15:28 AM	0:10:00				
Date	11/02/2022	11/02/2022					


CSU_001
dB 11/02/2022 10:05:28 AM - 10:15:28 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=63.8 dB LFmax=83.0 dB LFmin=49.4 dB


CSU_001
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:05:28 AM - 10:15:28 AM
100
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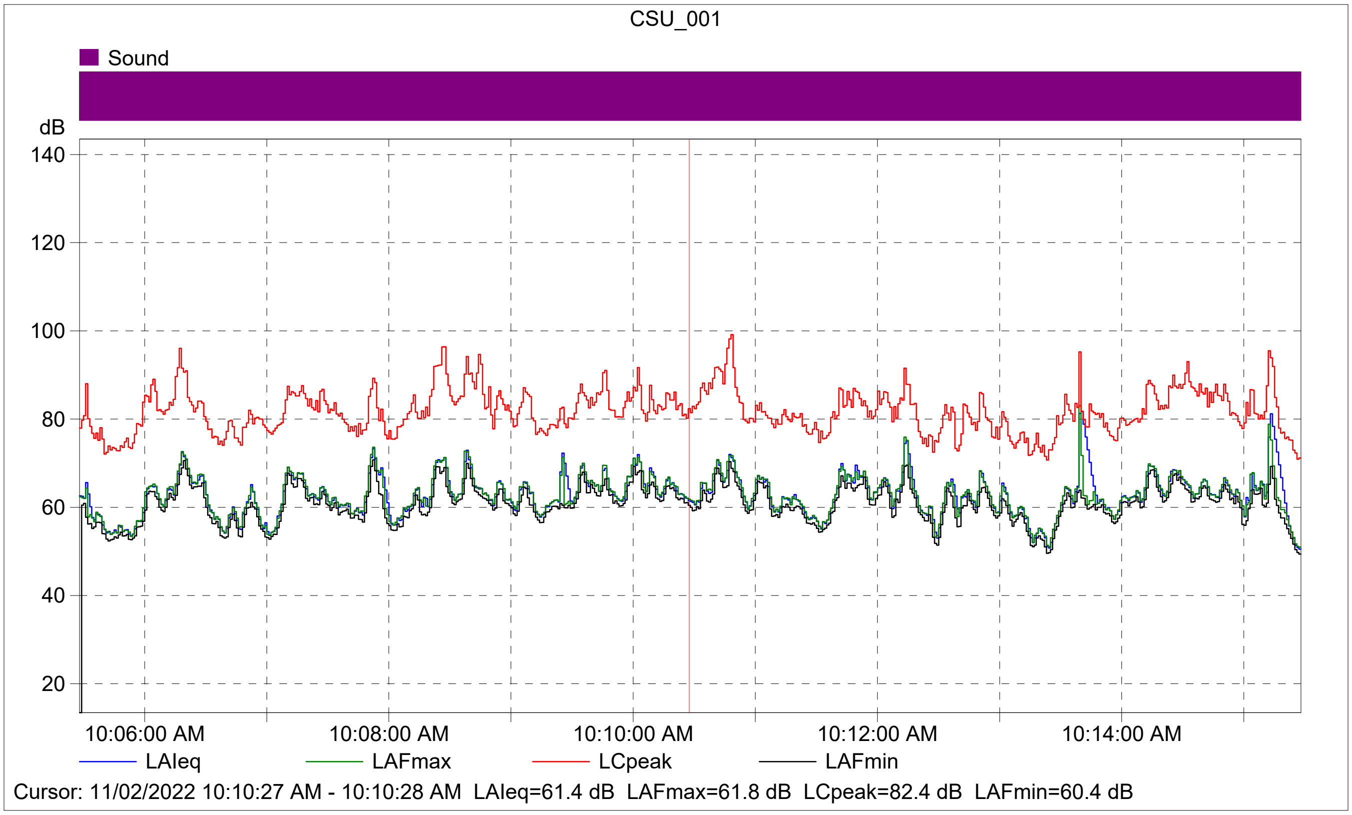
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 71.2 dB
L5 = 68.8 dB
L10 = 67.0 dB
L50 = 61.7 dB
L90 = 55.7 dB
L95 = 53.9 dB
L99 = 51.4 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.1%



CSU_001

	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
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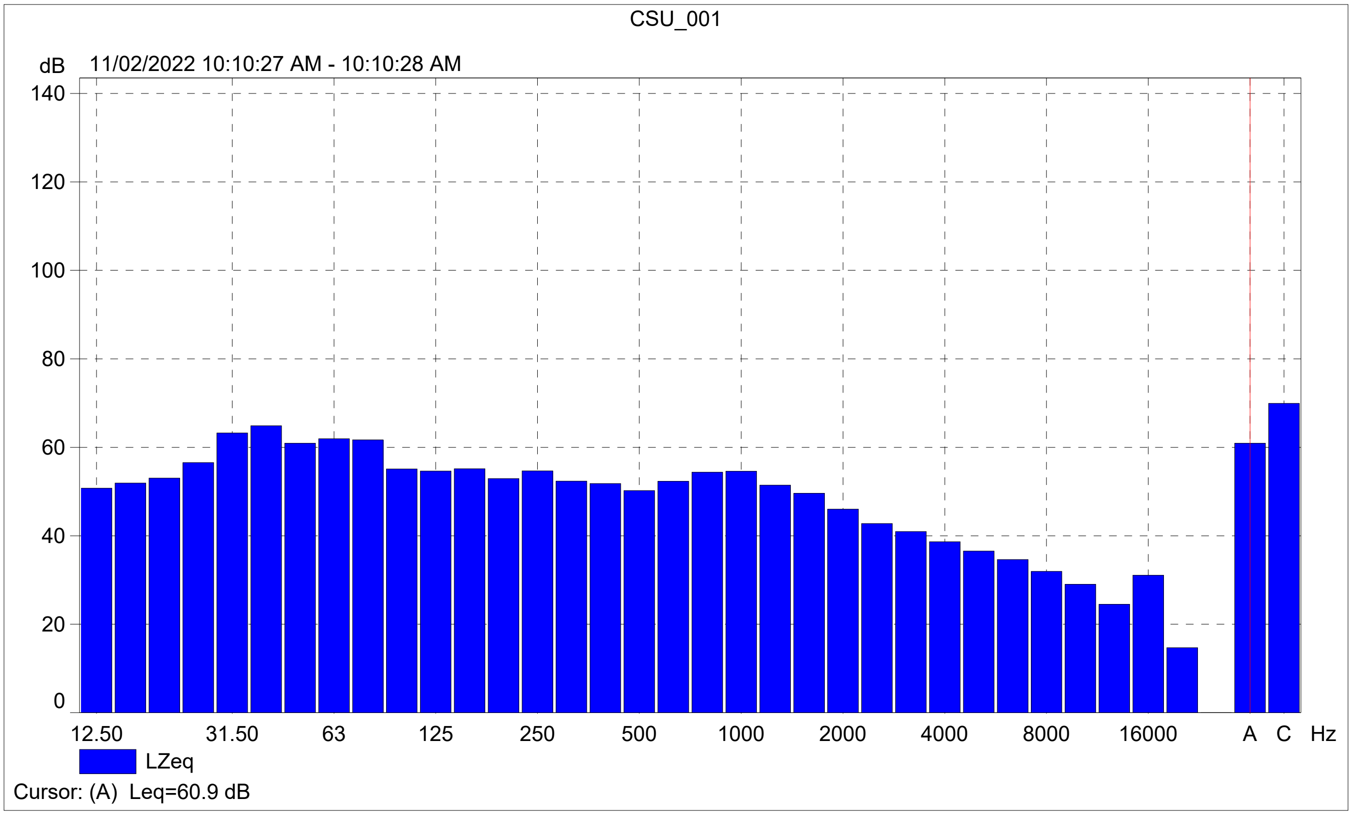
Date	11/02/2022				


CSU_001
dB
11/02/2022 10:10:27 AM - 10:10:28 AM
140
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63
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2000
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8000
16000
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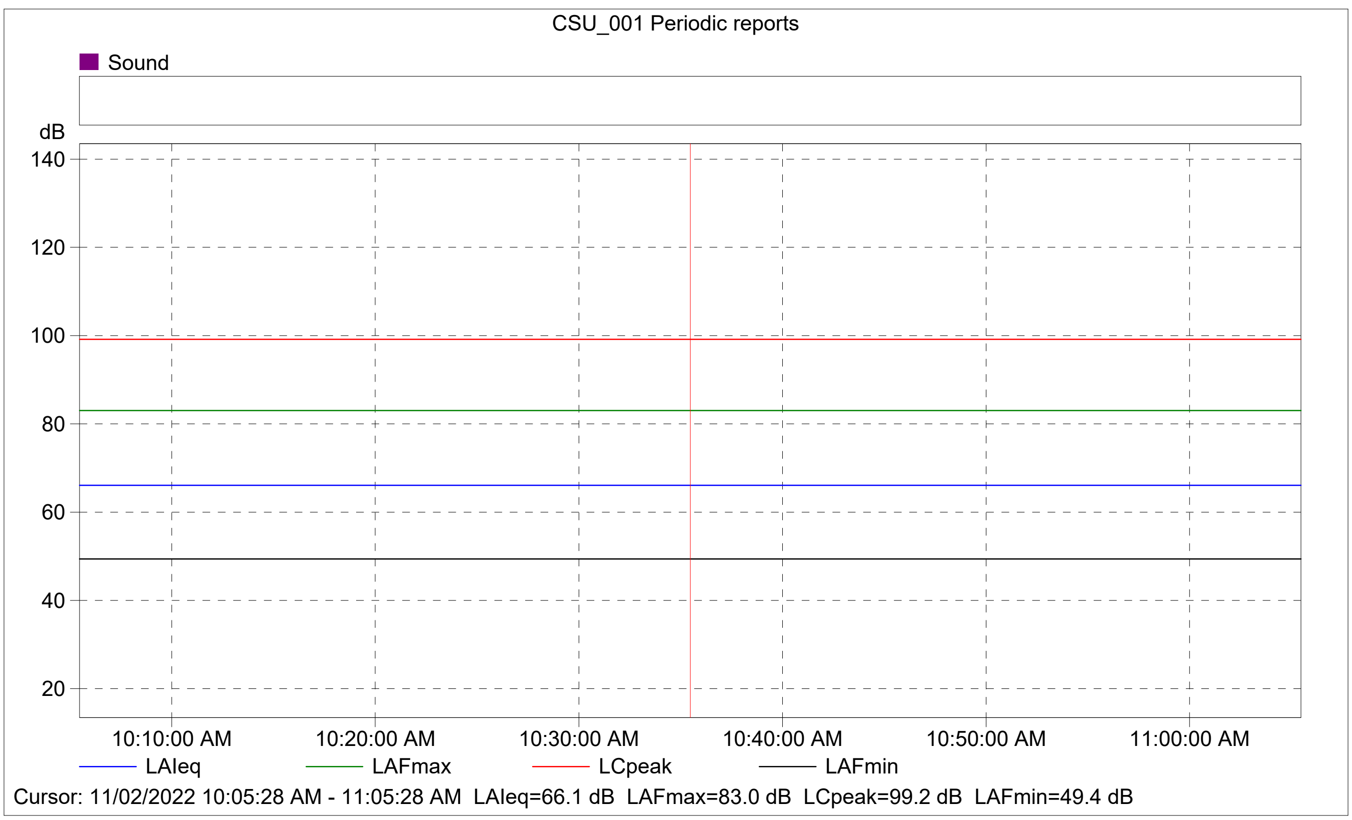
Hz
LZeq
Cursor: (A) Leq=60.9 dB


CSU_001 Periodic reports
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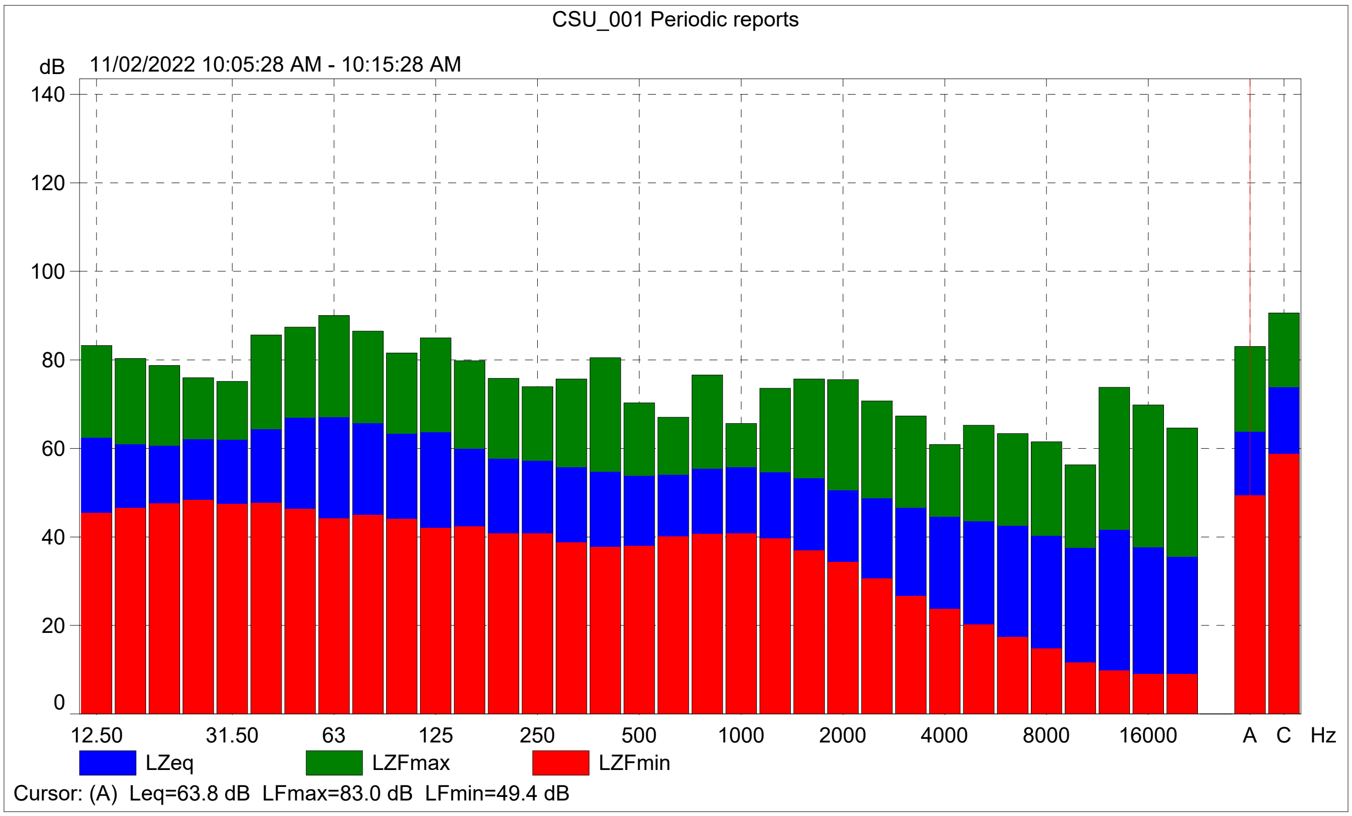
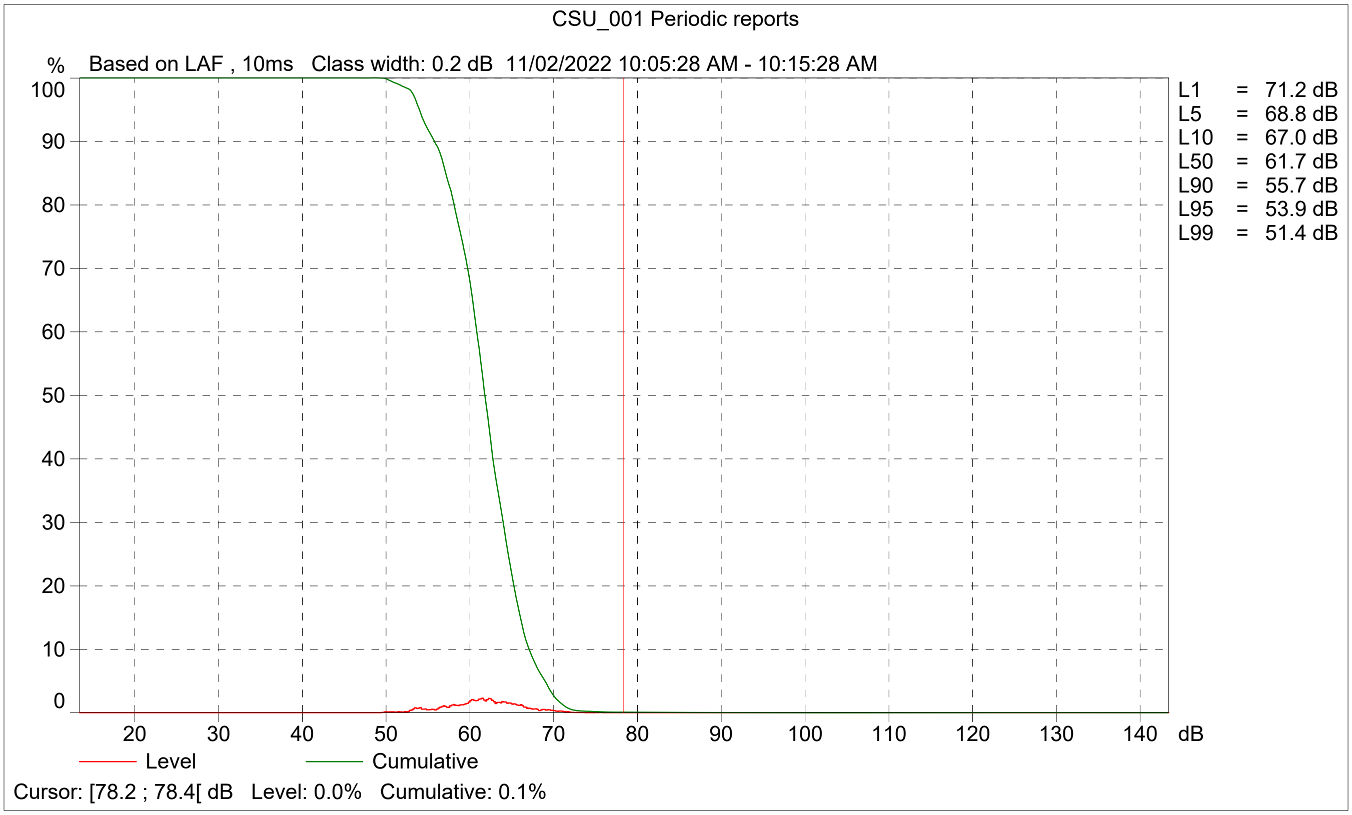
10:10:00 AM
10:20:00 AM
10:30:00 AM
10:40:00 AM
10:50:00 AM
11:00:00 AM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2022 10:05:28 AM - 11:05:28 AM LAIeq=66.1 dB LAFmax=83.0 dB LCpeak=99.2 dB LAFmin=49.4 dB

CSU_001 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	66.1	83.0	49.4
Time	10:05:28 AM	0:10:00				
Date	11/02/2022					




CSU_001 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:05:28 AM - 10:15:28 AM
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30
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10
0
20
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40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 71.2 dB
L5 = 68.8 dB
L10 = 67.0 dB
L50 = 61.7 dB
L90 = 55.7 dB
L95 = 53.9 dB
L99 = 51.4 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.1%

Site Number: NM-2-SFH			
Recorded By: Tina Yuan, Darshan Shivaiah			
Job Number: 187650			
Date: 11/02/2022			
Time: 10:23 a.m.			
Location: Northwest of the intersection of North College Place and East Atherton Street.			
Source of Peak Noise: Traffic along East Atherton Street and North College Place.			
Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
64.5	81.9	48.0	98.3

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 10:22:42
End Time:		11/02/2022 10:32:42
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_002

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	64.5	81.9	48.0
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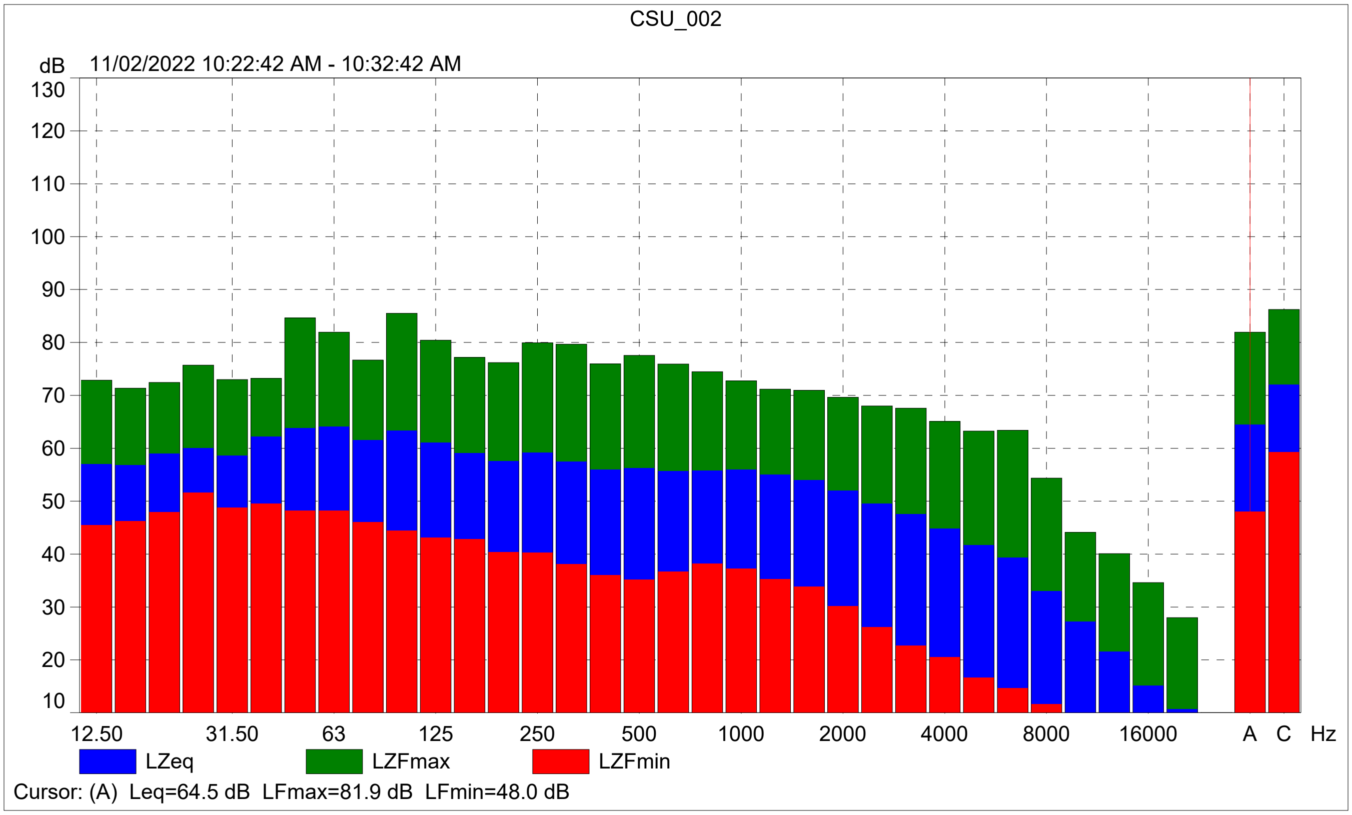
Date	11/02/2022	11/02/2022					



CSU_002
dB 11/02/2022 10:22:42 AM - 10:32:42 AM
130
120
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100
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20
10
12.50
31.50
63
125
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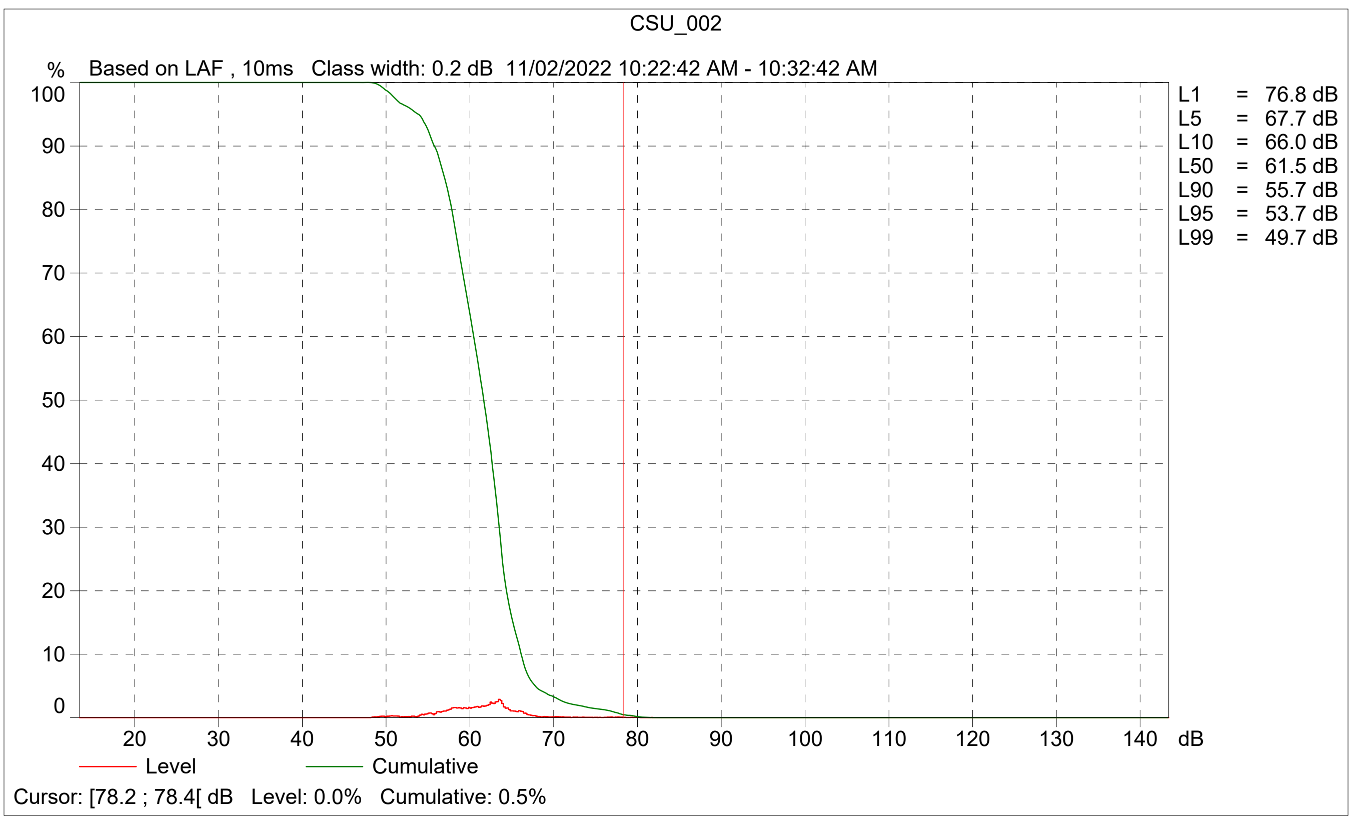
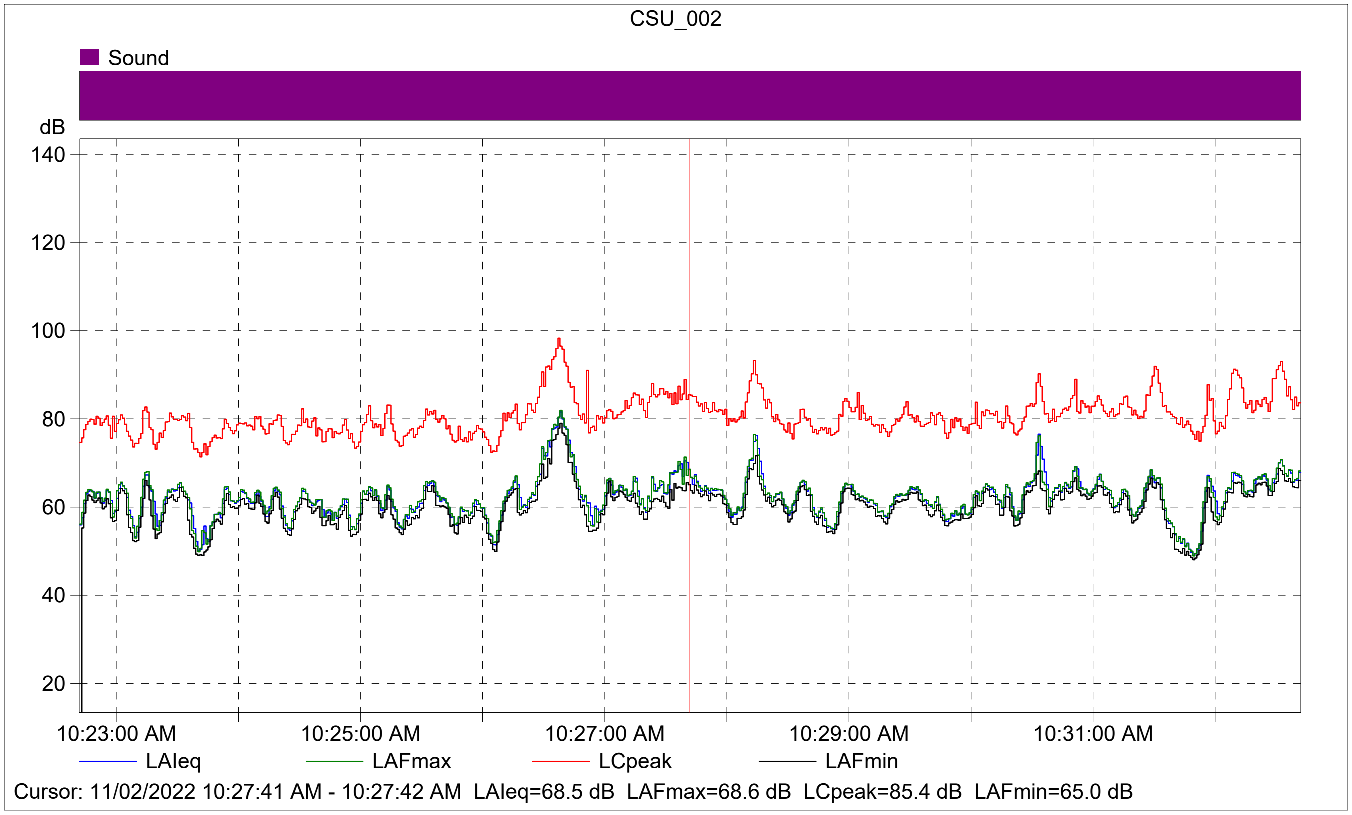
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=64.5 dB LFmax=81.9 dB LFmin=48.0 dB

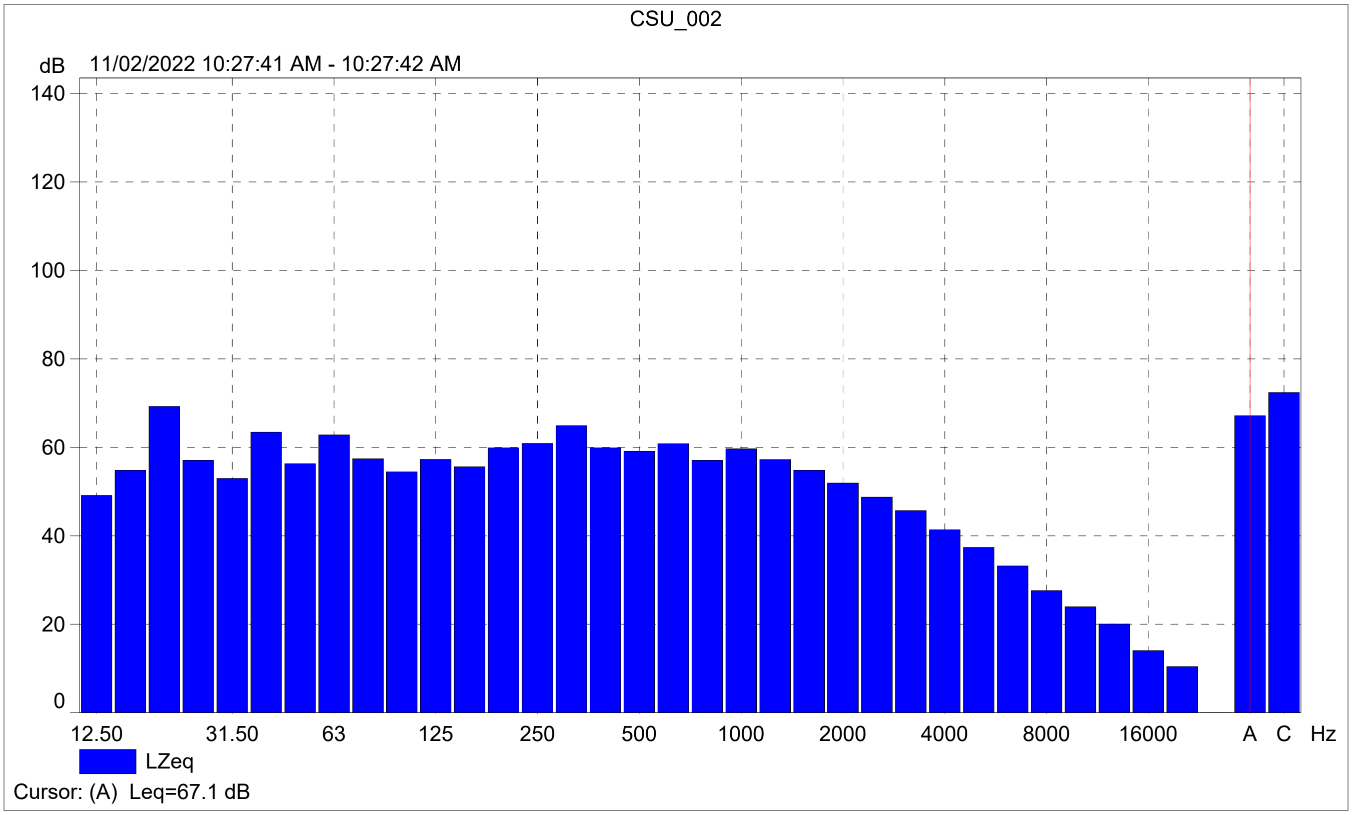


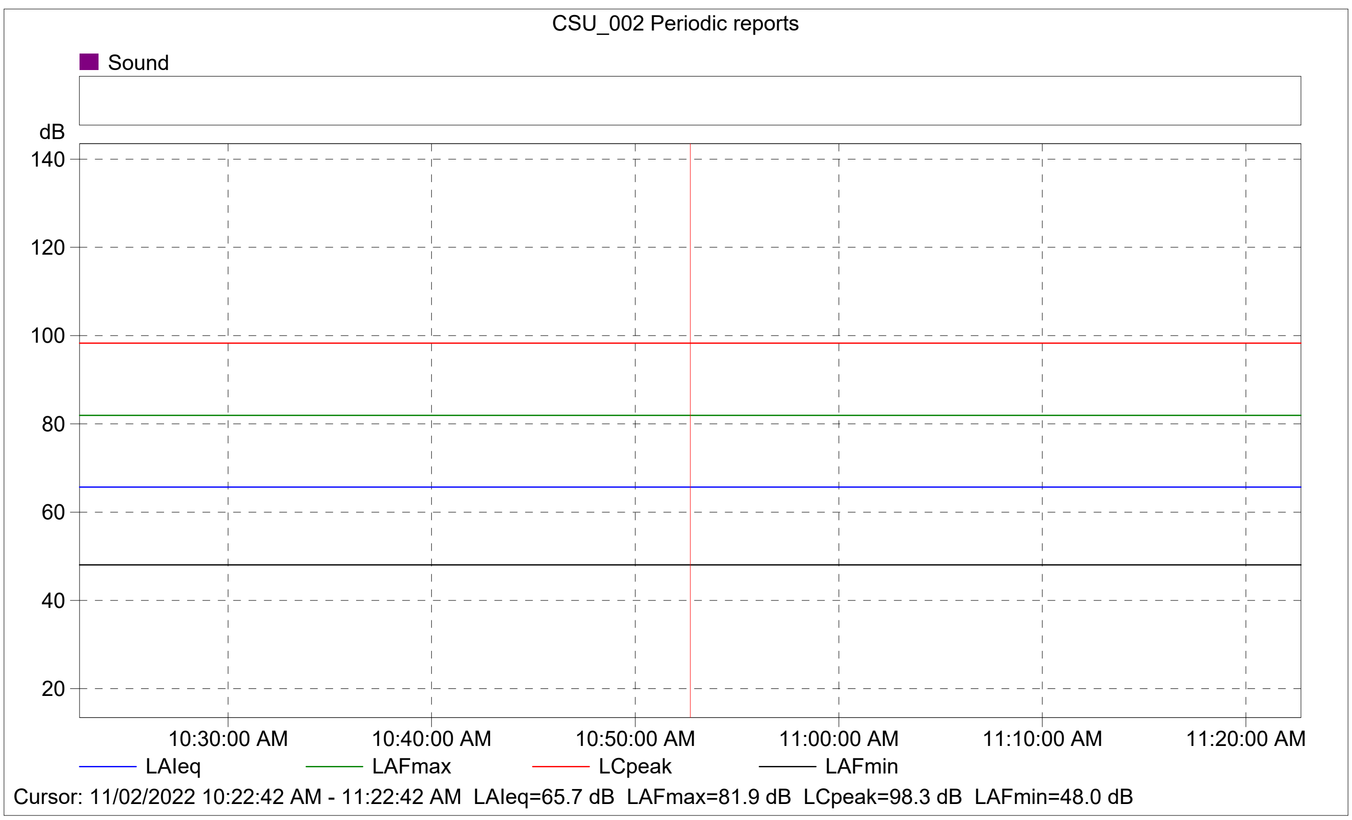
CSU_002
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:22:42 AM - 10:32:42 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 76.8 dB
L5 = 67.7 dB
L10 = 66.0 dB
L50 = 61.5 dB
L90 = 55.7 dB
L95 = 53.7 dB
L99 = 49.7 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.5%



CSU_002

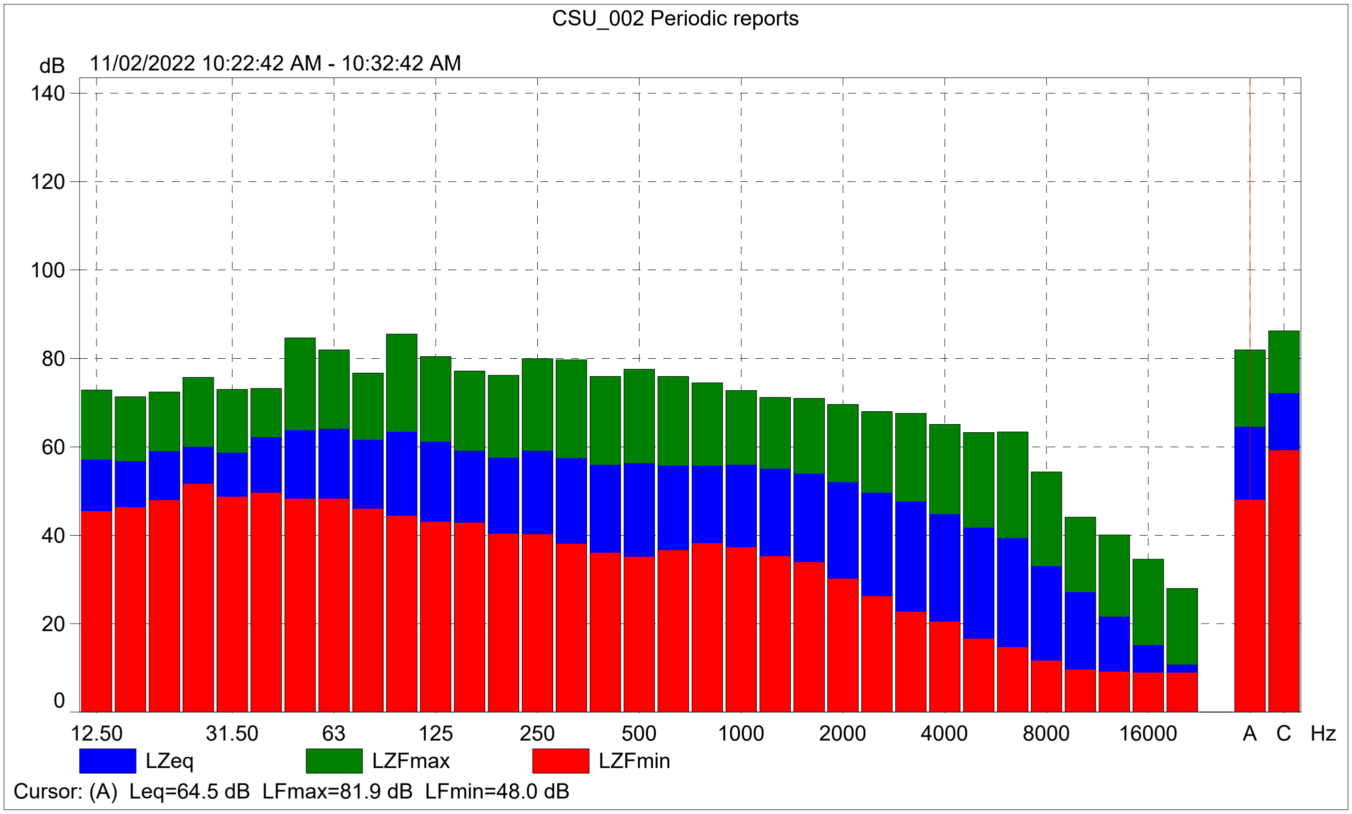
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			68.5	68.6	65.0
Time	10:27:41 AM	0:00:01			
Date	11/02/2022				


CSU_002
dB 11/02/2022 10:27:41 AM - 10:27:42 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=67.1 dB


CSU_002 Periodic reports
Sound
dB
140
120
100
80
60
40
20
10:30:00 AM
10:40:00 AM
10:50:00 AM
11:00:00 AM
11:10:00 AM
11:20:00 AM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2022 10:22:42 AM - 11:22:42 AM LAIeq=65.7 dB LAFmax=81.9 dB LCpeak=98.3 dB LAFmin=48.0 dB

CSU_002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	65.7	81.9	48.0
Time	10:22:42 AM	0:10:00				
Date	11/02/2022					



Site Number: NM-3-SFH			
Recorded By: Tina Yuan, Darshan Shivaiah			
Job Number: 187650			
Date: 11/02/2022			
Time: 10:40 a.m.			
Location: Northwest corner of the intersection of Lave Avenue and East Atherton Street.			
Source of Peak Noise: Traffic along East Atherton Street and Lave Avenue, aircraft noise overhead.			
Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
69.4	81.2	49.2	98.2

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 10:39:28
End Time:		11/02/2022 10:49:28
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

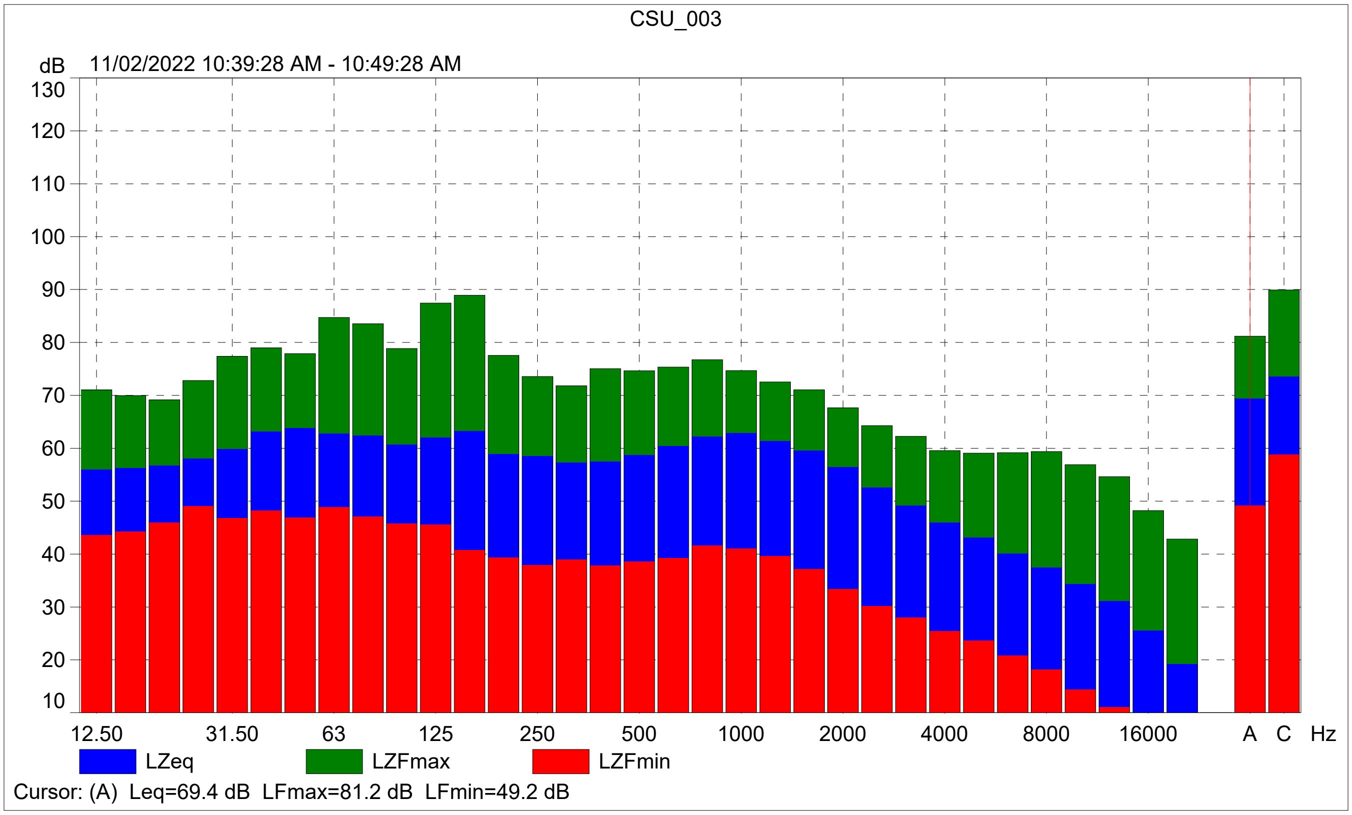
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

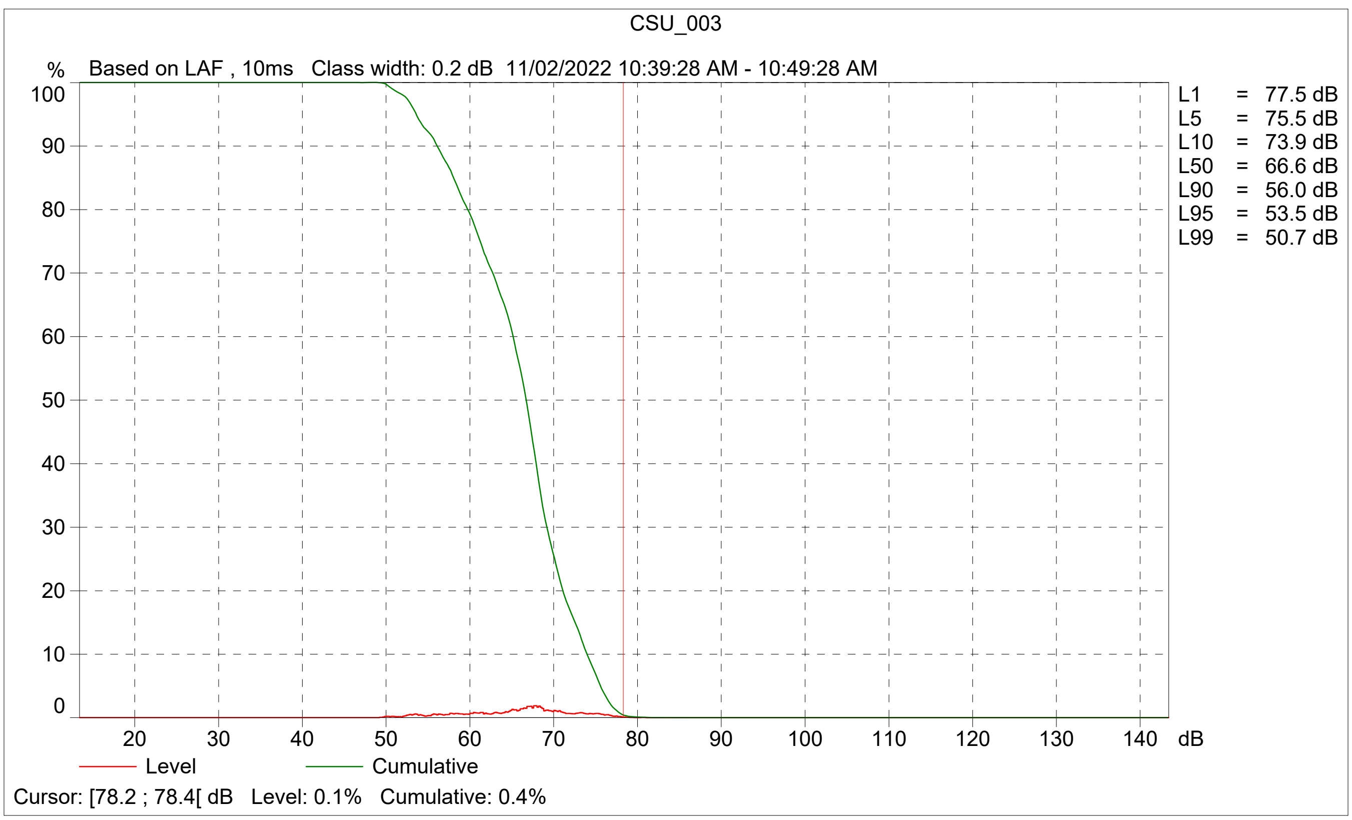
Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_003

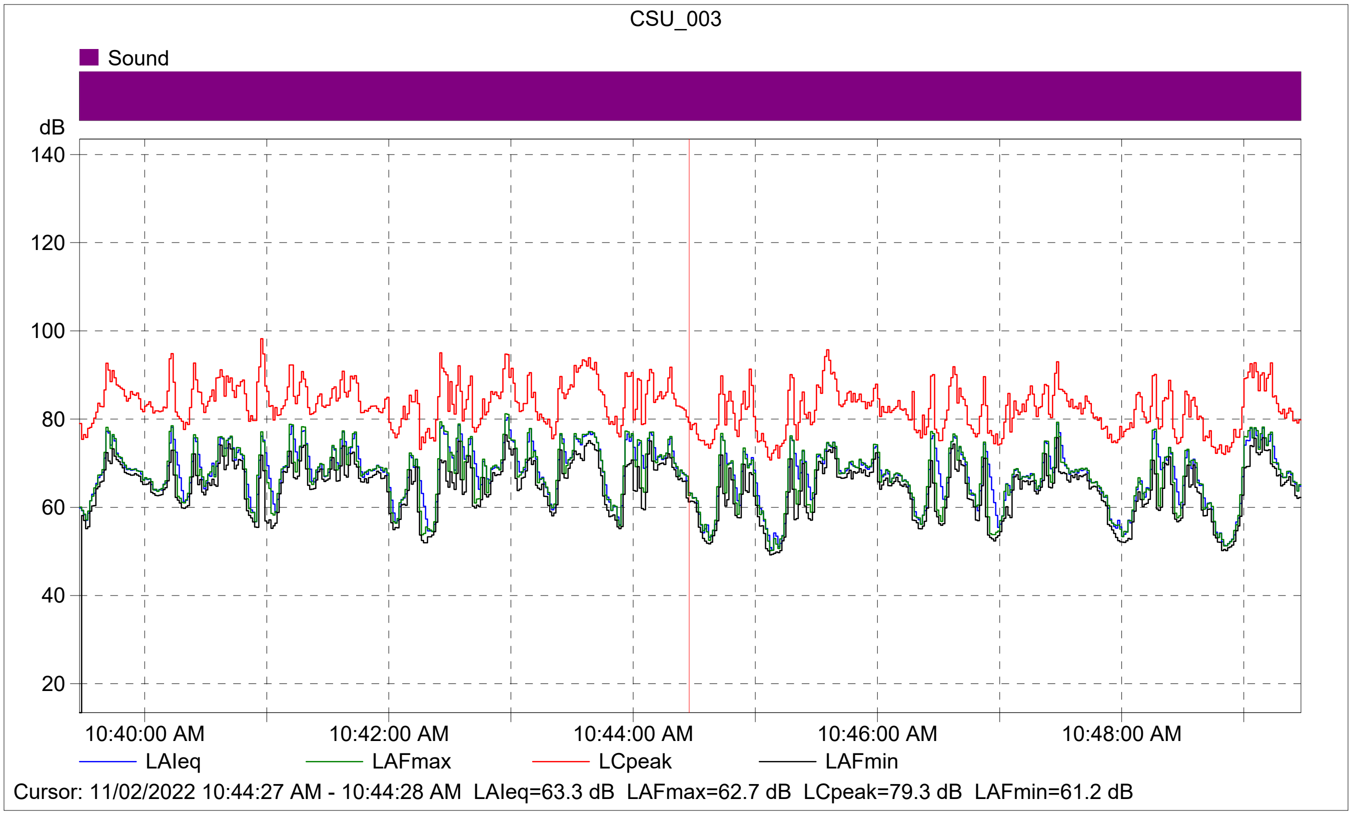
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	69.4	81.2	49.2
Time	10:39:28 AM	10:49:28 AM	0:10:00				
Date	11/02/2022	11/02/2022					



CSU_003
dB 11/02/2022 10:39:28 AM - 10:49:28 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=69.4 dB LFmax=81.2 dB LFmin=49.2 dB



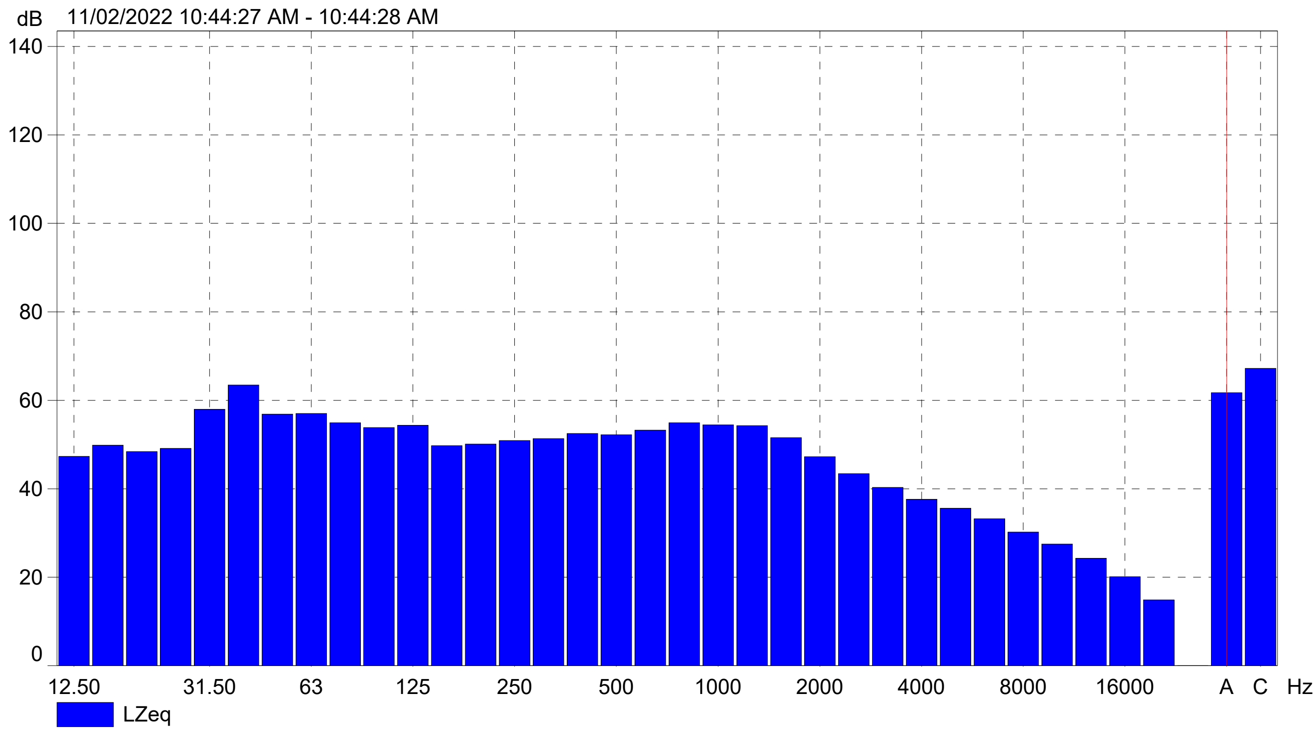
CSU_003
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:39:28 AM - 10:49:28 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 77.5 dB
L5 = 75.5 dB
L10 = 73.9 dB
L50 = 66.6 dB
L90 = 56.0 dB
L95 = 53.5 dB
L99 = 50.7 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.1% Cumulative: 0.4%



CSU_003

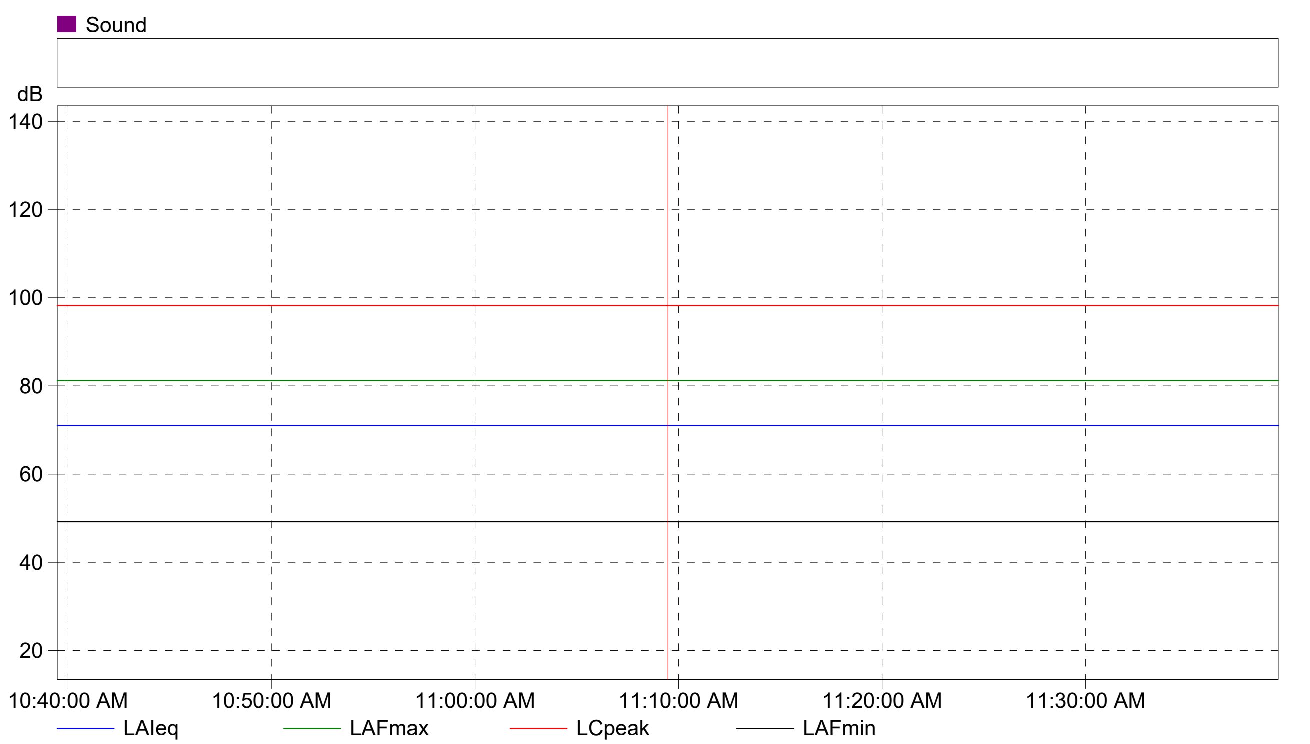
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			63.3	62.7	61.2
Time	10:44:27 AM	0:00:01			
Date	11/02/2022				

CSU_003



Cursor: (A) Leq=61.7 dB

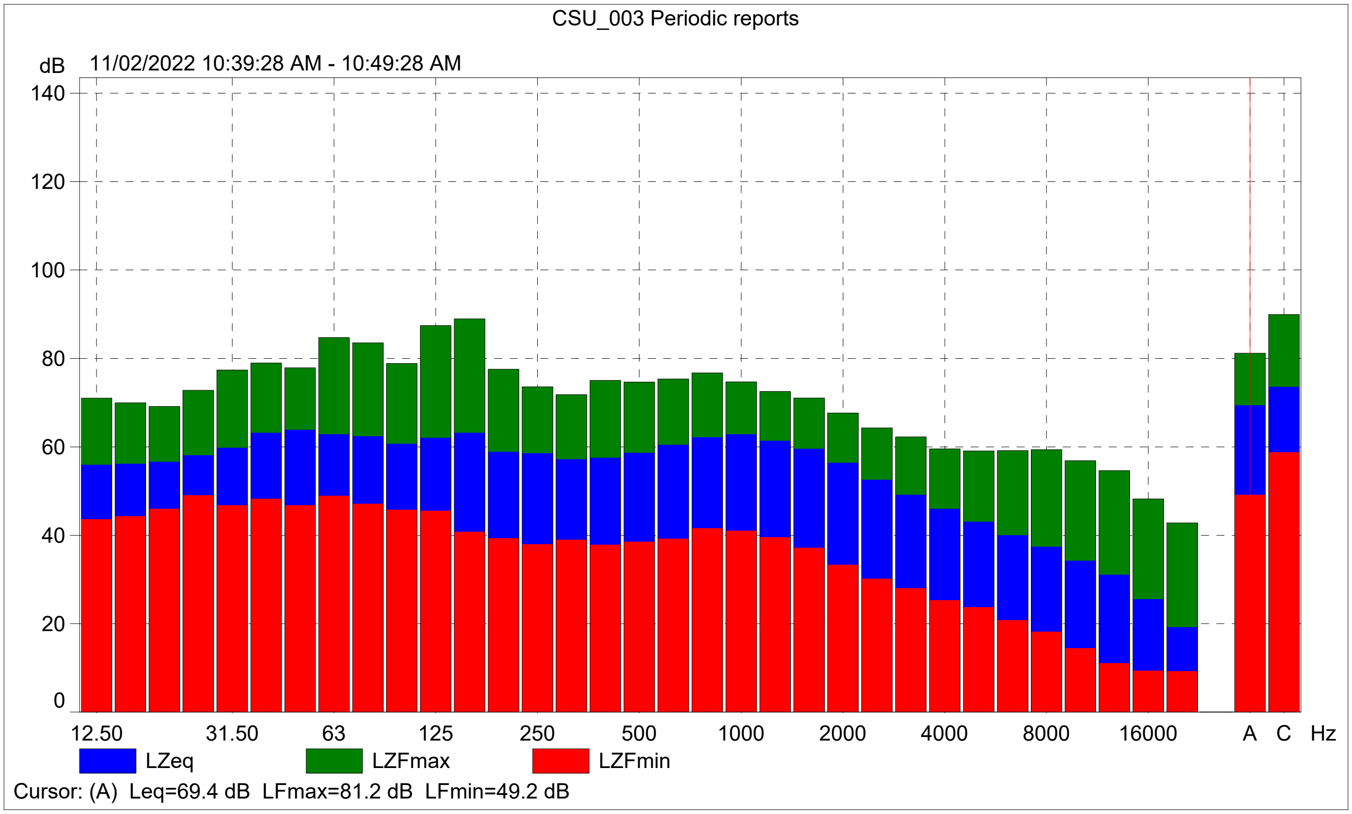
CSU_003 Periodic reports



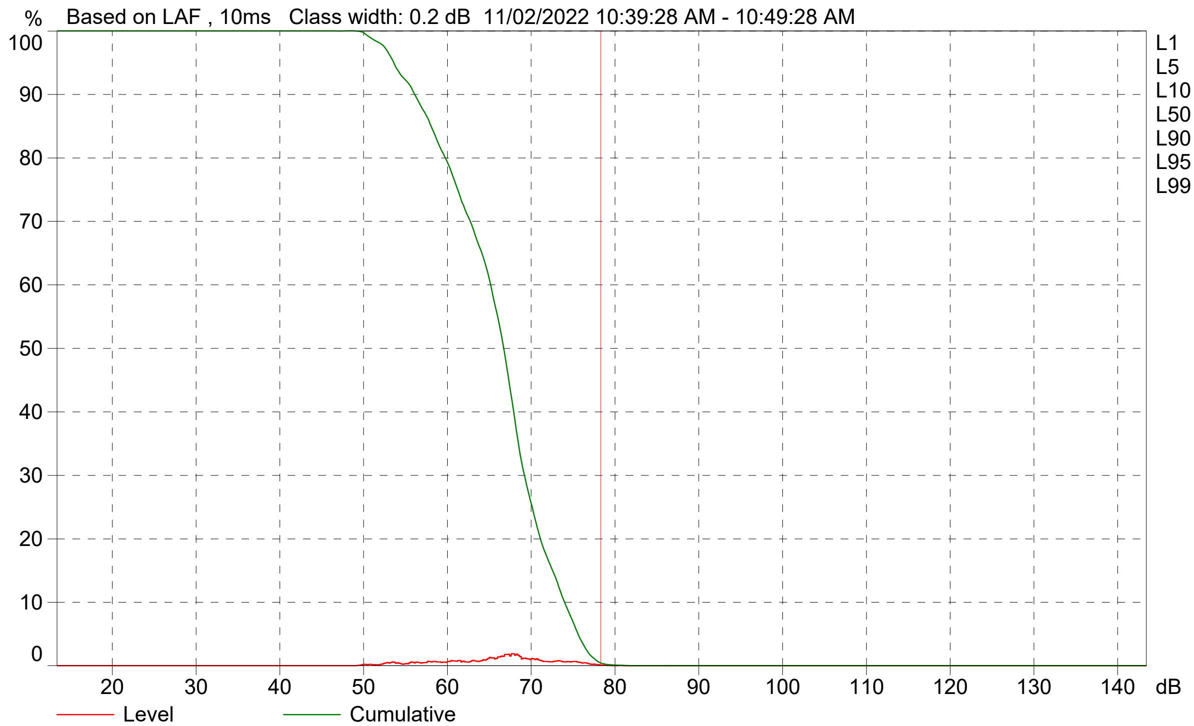
Cursor: 11/02/2022 10:39:28 AM - 11:39:28 AM LAIeq=71.0 dB LAFmax=81.2 dB LCpeak=98.2 dB LAFmin=49.2 dB

CSU_003 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	71.0	81.2	49.2
Time	10:39:28 AM	0:10:00				
Date	11/02/2022					

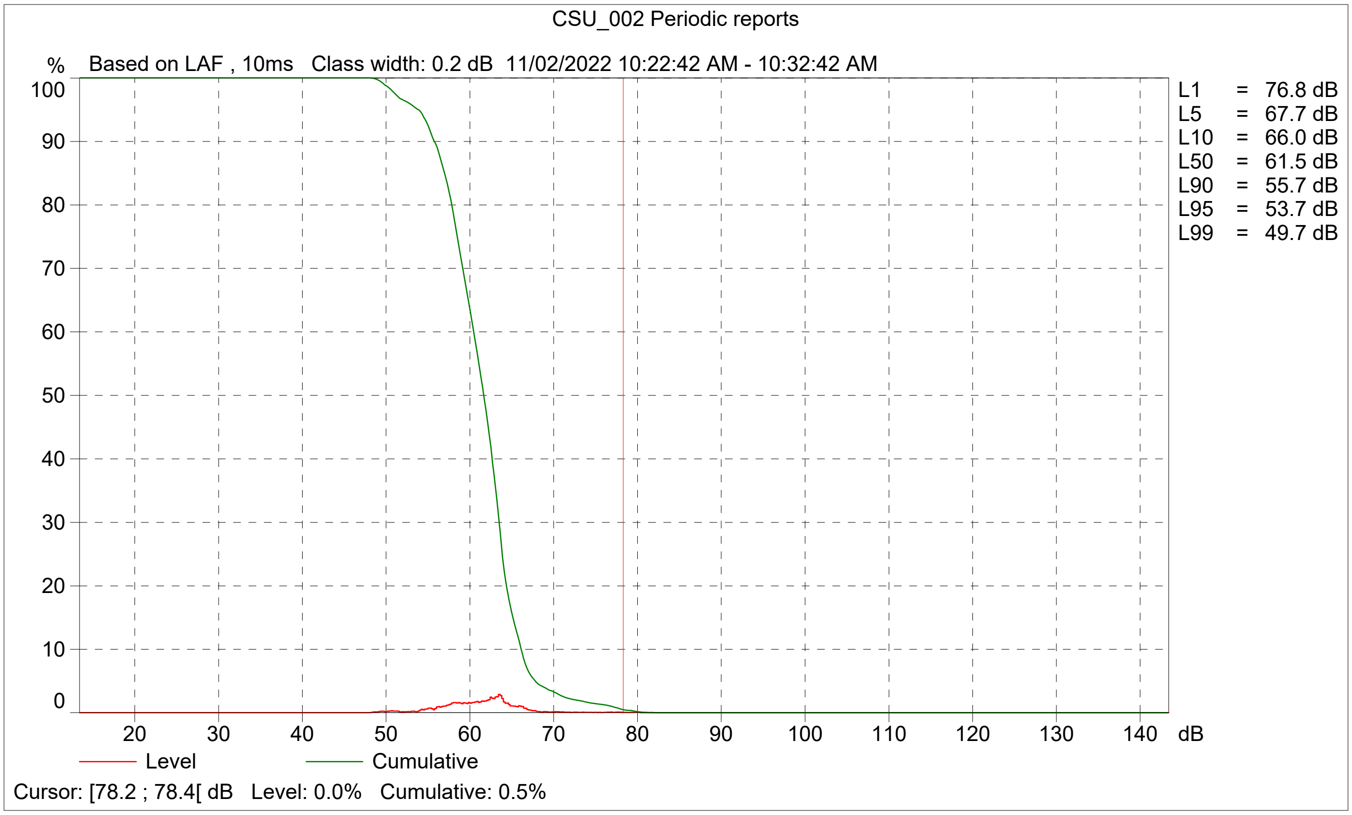


CSU_003 Periodic reports



L1	=	77.5 dB
L5	=	75.5 dB
L10	=	73.9 dB
L50	=	66.6 dB
L90	=	56.0 dB
L95	=	53.5 dB
L99	=	50.7 dB

Cursor: [78.2 ; 78.4[dB Level: 0.1% Cumulative: 0.4%


CSU_002 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:22:42 AM - 10:32:42 AM
L1 = 76.8 dB
L5 = 67.7 dB
L10 = 66.0 dB
L50 = 61.5 dB
L90 = 55.7 dB
L95 = 53.7 dB
L99 = 49.7 dB
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.5%

Site Number: NM-4-SFH

Recorded By: Tina Yuan, Darshan Shivaiah

Job Number: 187650

Date: 11/02/2022

Time: 10:58 a.m.

Location: Along the Alleyway at East of 1230 Los Altos Avenue.

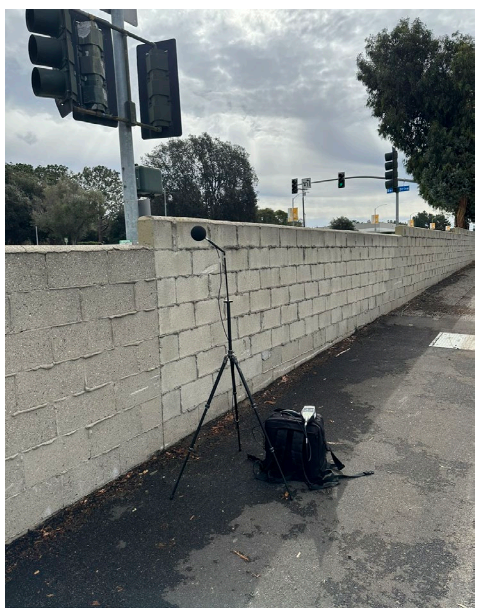
Source of Peak Noise: Traffic noise along Bellflower Boulevard and Beach Drive. Aircraft noise overhead.

Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
64.3	79.1	49.9	96.7

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 10:57:36
End Time:		11/02/2022 11:07:36
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

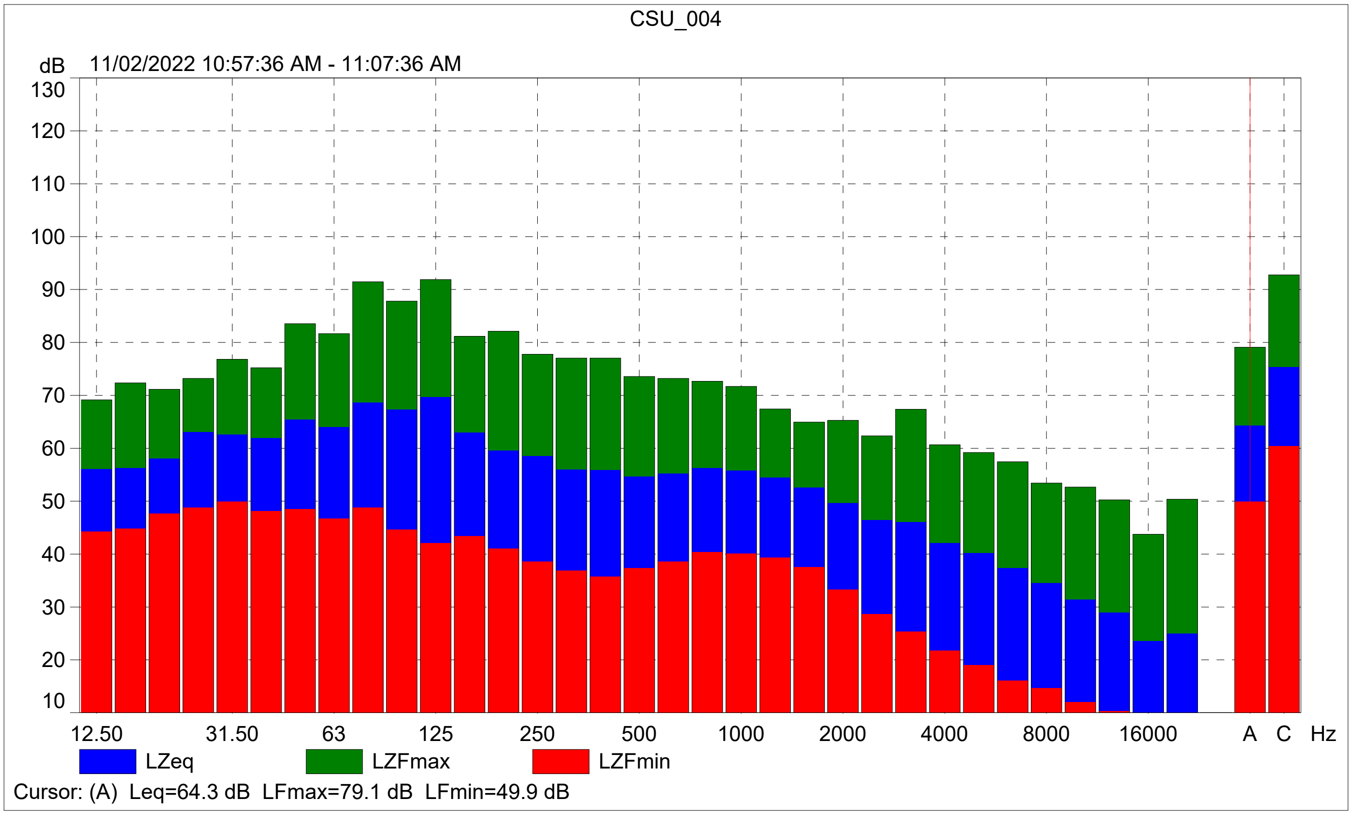
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

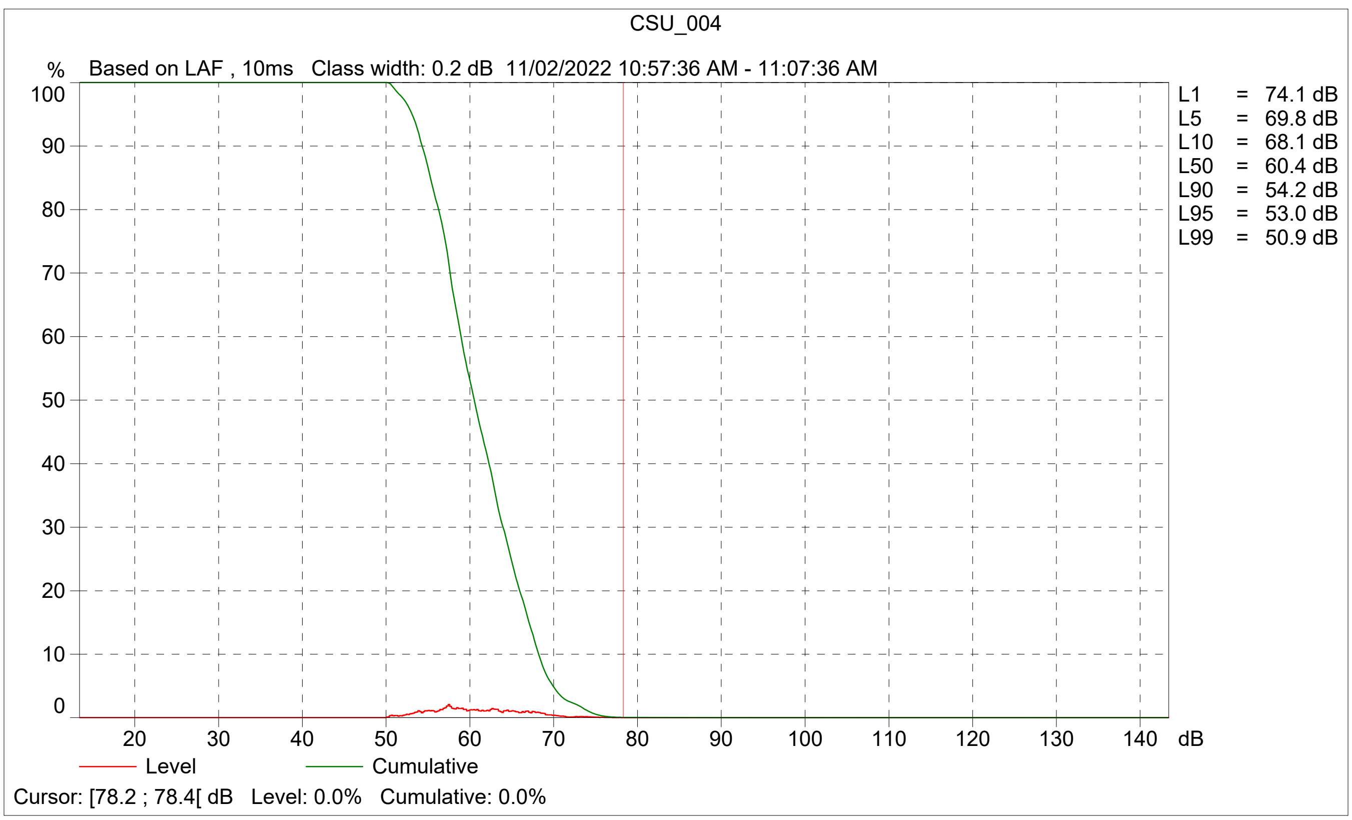
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

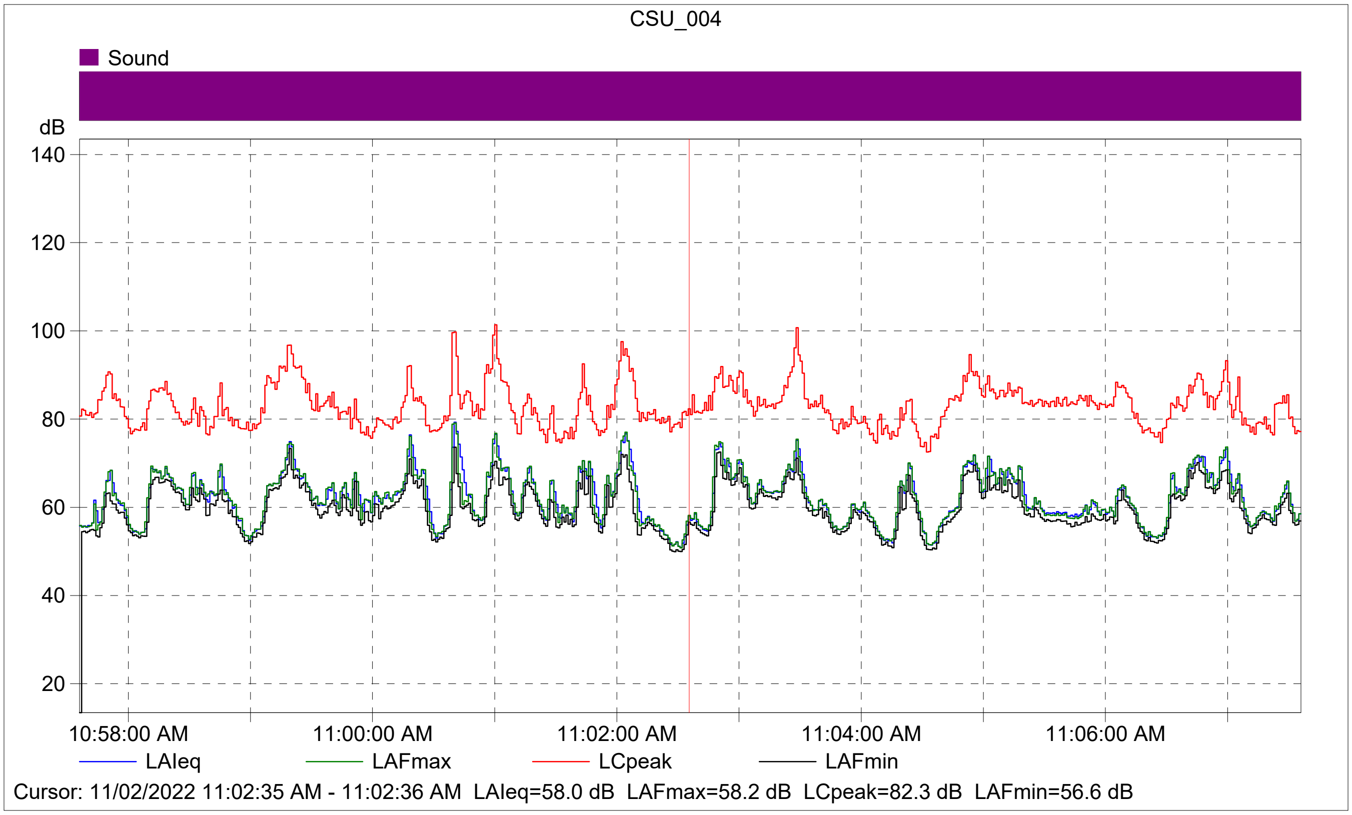
Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_004

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	64.3	79.1	49.9
Time	10:57:36 AM	11:07:36 AM	0:10:00				
Date	11/02/2022	11/02/2022					

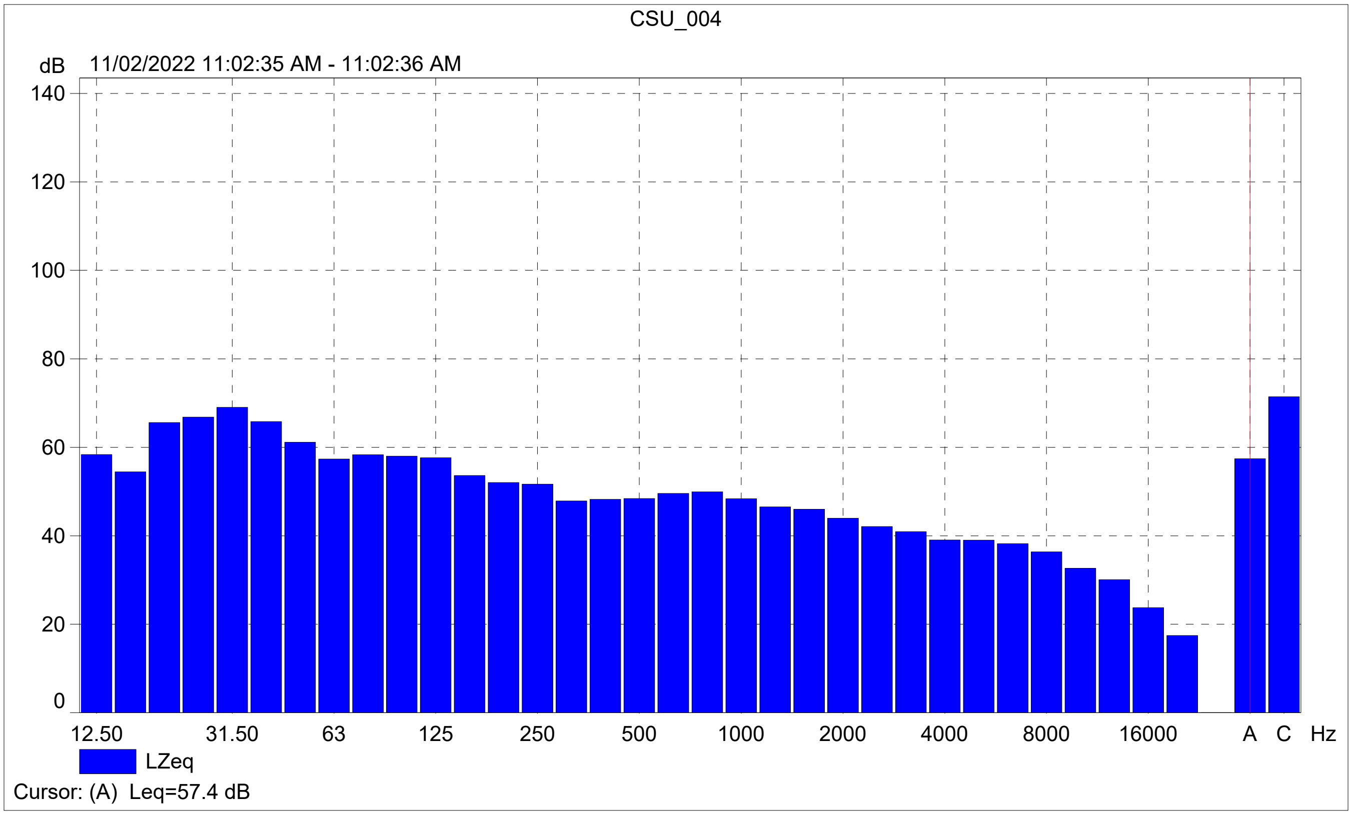

CSU_004
dB 11/02/2022 10:57:36 AM - 11:07:36 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=64.3 dB LFmax=79.1 dB LFmin=49.9 dB

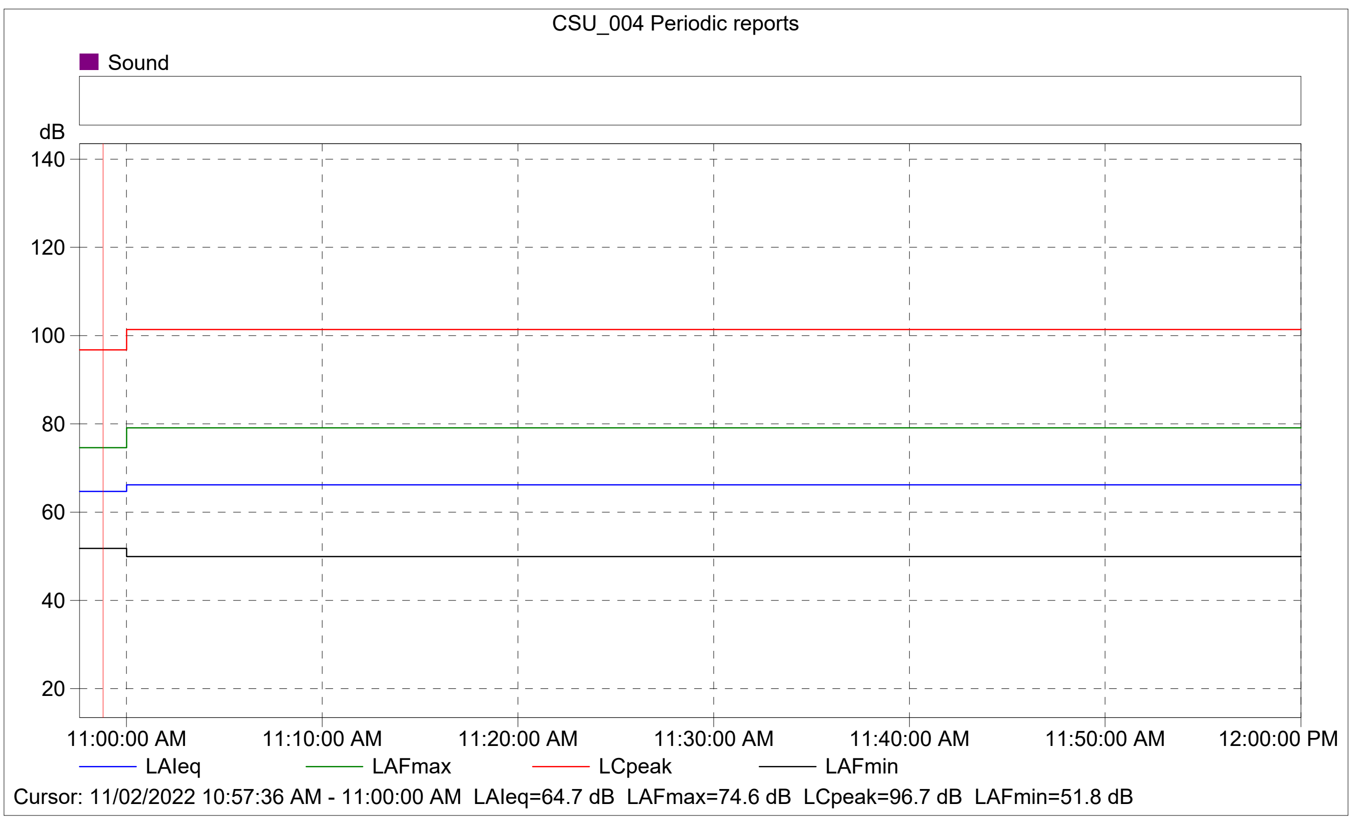

CSU_004
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 10:57:36 AM - 11:07:36 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 74.1 dB
L5 = 69.8 dB
L10 = 68.1 dB
L50 = 60.4 dB
L90 = 54.2 dB
L95 = 53.0 dB
L99 = 50.9 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



CSU_004

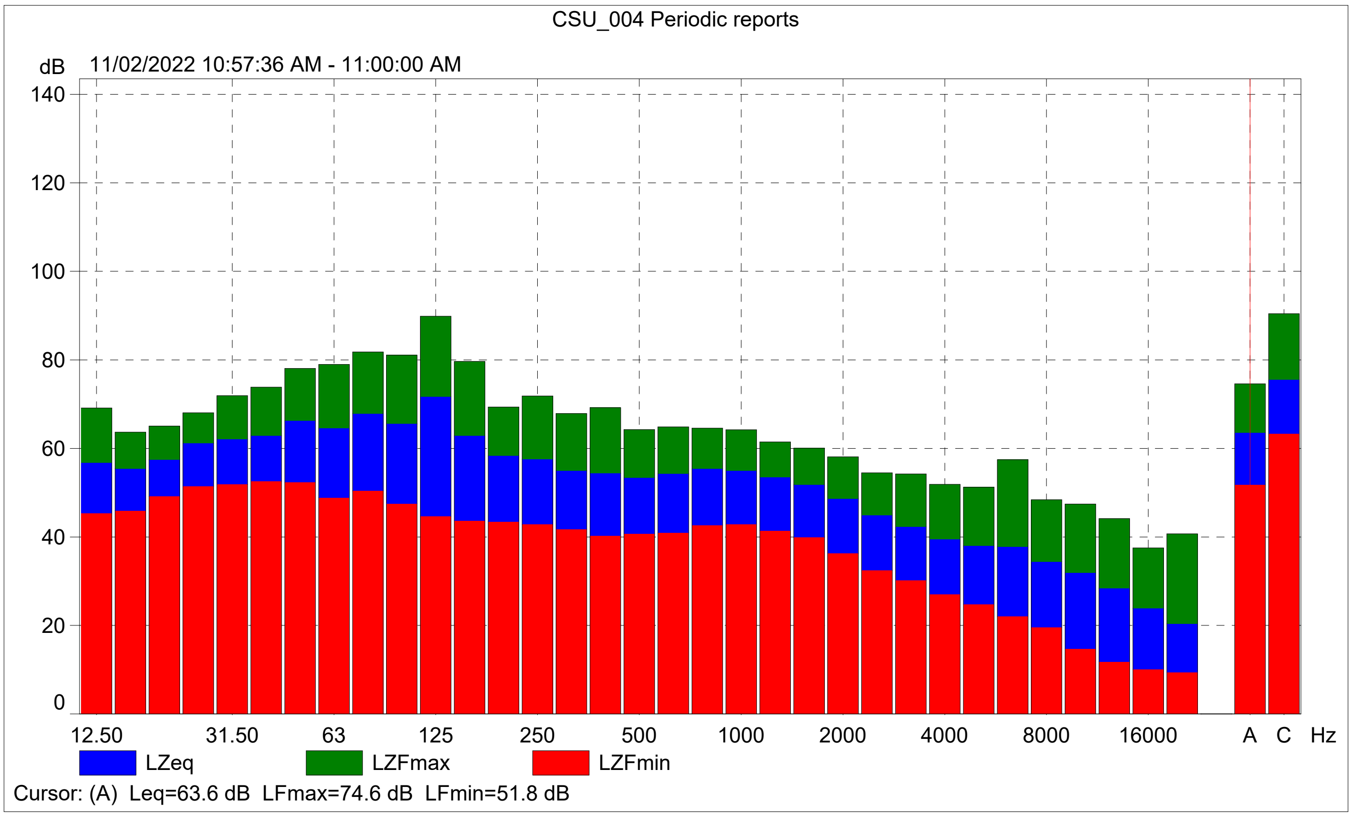
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			58.0	58.2	56.6
Time	11:02:35 AM	0:00:01			
Date	11/02/2022				


CSU_004
dB 11/02/2022 11:02:35 AM - 11:02:36 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=57.4 dB

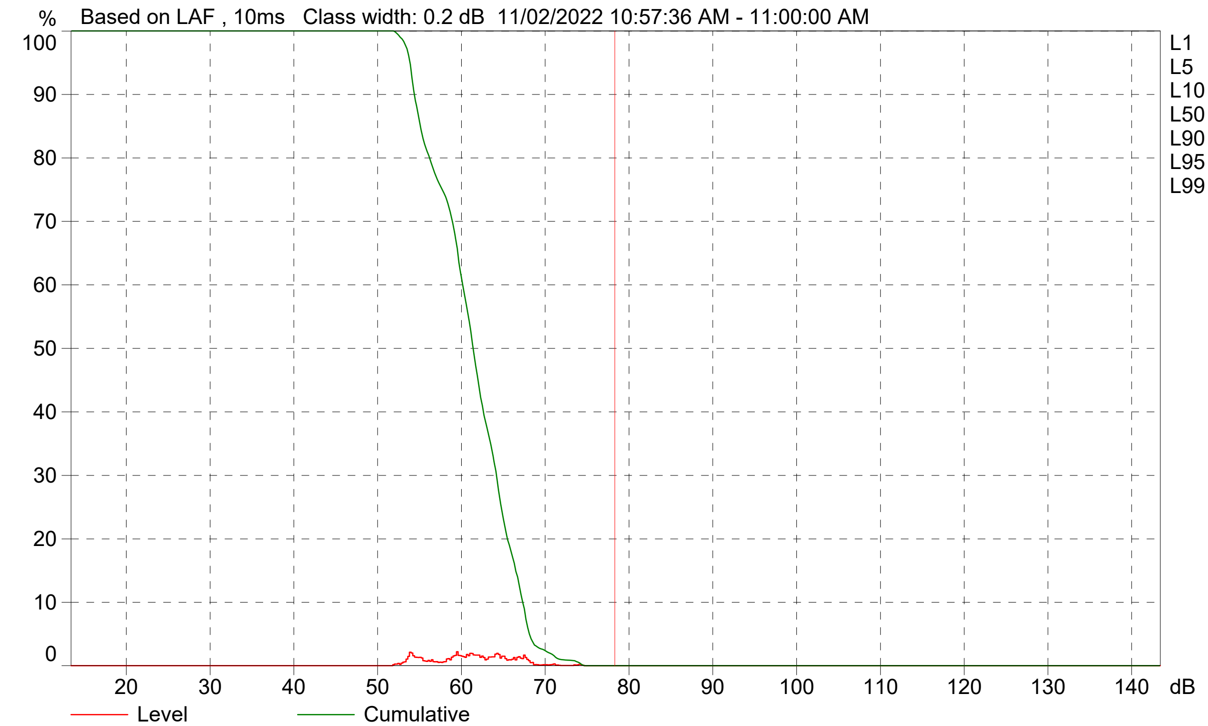

CSU_004 Periodic reports
Sound
dB
140
120
100
80
60
40
20
11:00:00 AM
11:10:00 AM
11:20:00 AM
11:30:00 AM
11:40:00 AM
11:50:00 AM
12:00:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2022 10:57:36 AM - 11:00:00 AM LAIeq=64.7 dB LAFmax=74.6 dB LCpeak=96.7 dB LAFmin=51.8 dB

CSU_004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	64.7	74.6	51.8
Time	10:57:36 AM	0:02:24				
Date	11/02/2022					



CSU_004 Periodic reports



L1	=	71.7 dB
L5	=	68.0 dB
L10	=	67.2 dB
L50	=	61.3 dB
L90	=	54.3 dB
L95	=	53.8 dB
L99	=	52.6 dB

Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

Site Number: NM-5-MFH
Recorded By: Tina Yuan, Darshan Shivaiah
Job Number: 187650
Date: 11/02/2022
Time: 11:21 a.m.
Location: In front of the garage gate of 630-103 Brocton Circle.
Source of Peak Noise: Traffic noise along East 7th Street.

Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
53.1	64.8	41.2	90.4

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 11:20:36
End Time:		11/02/2022 11:30:36
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

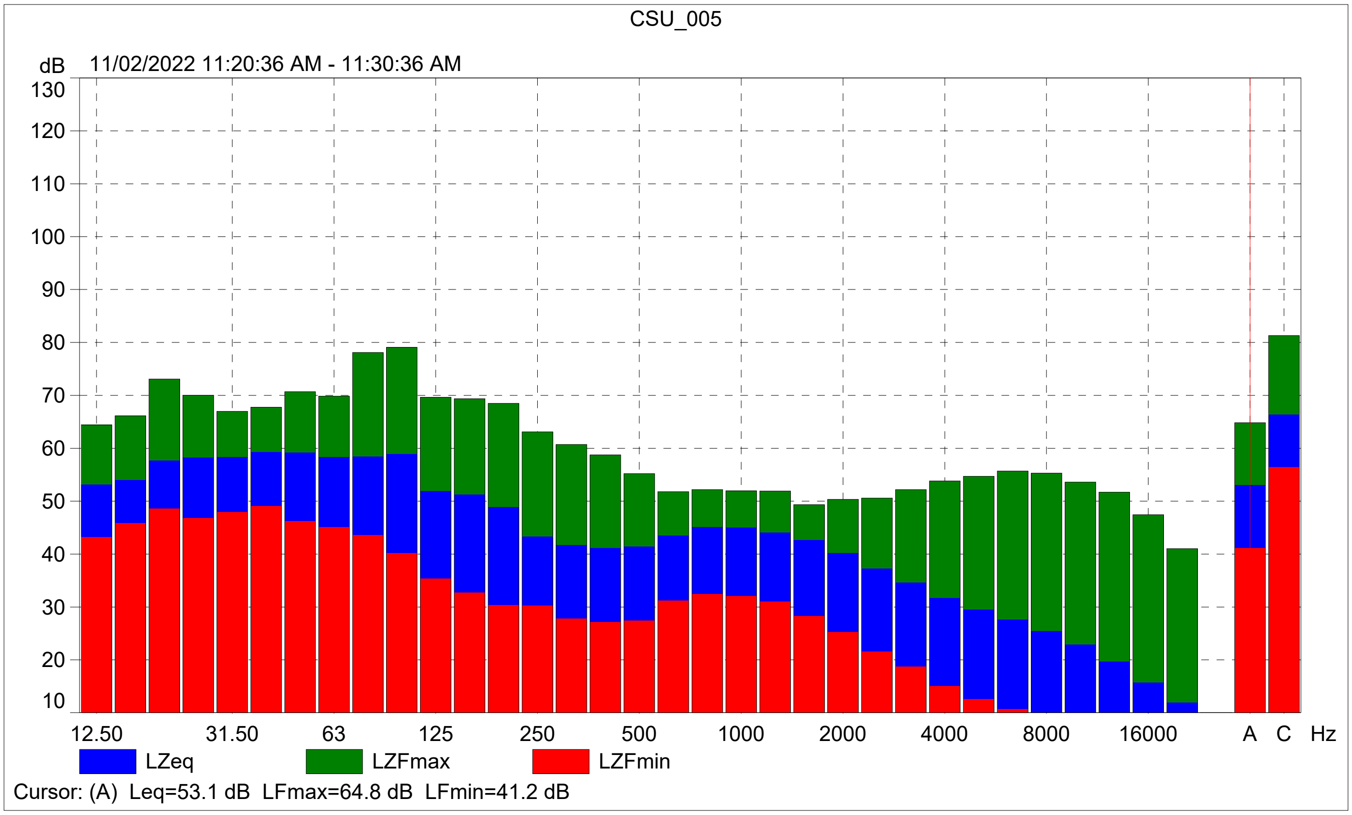
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

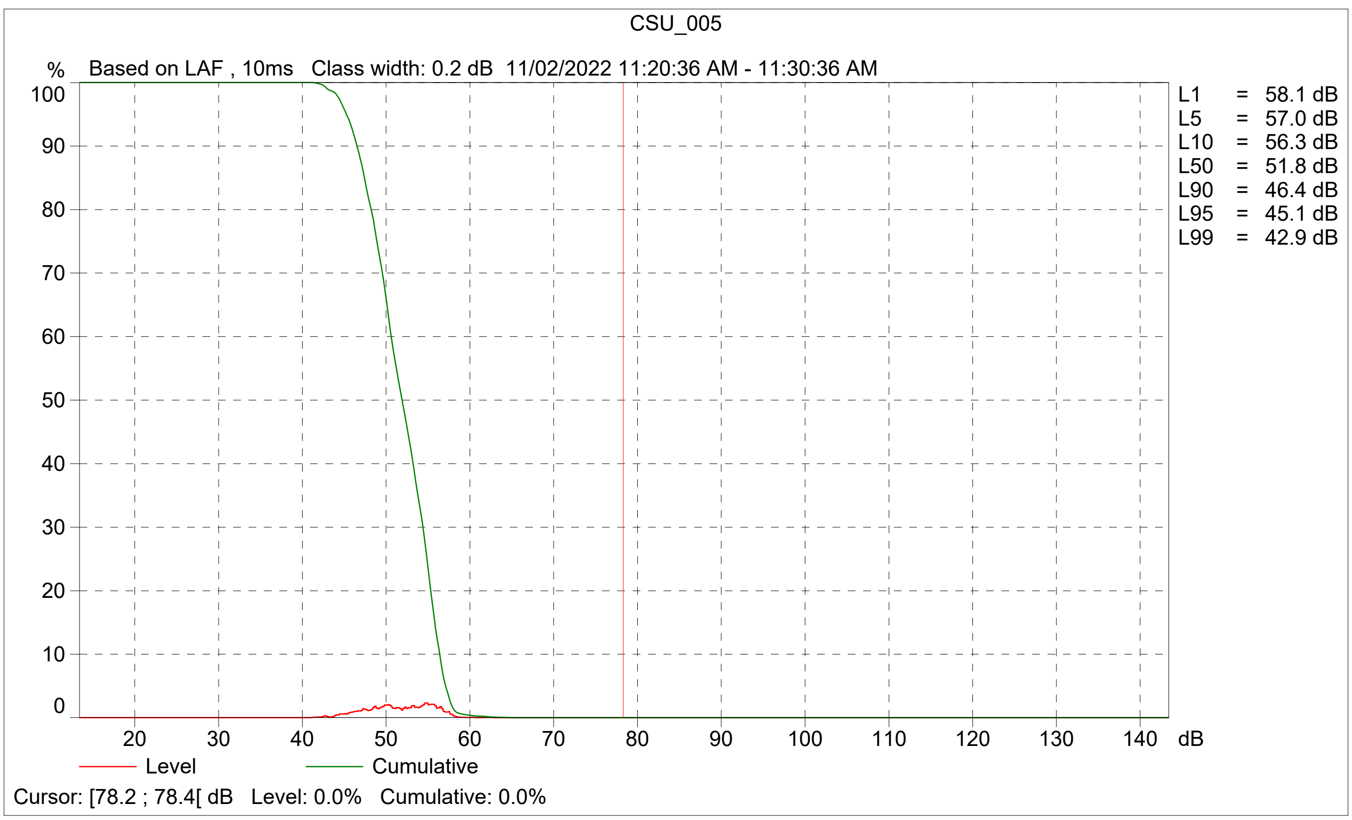
Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

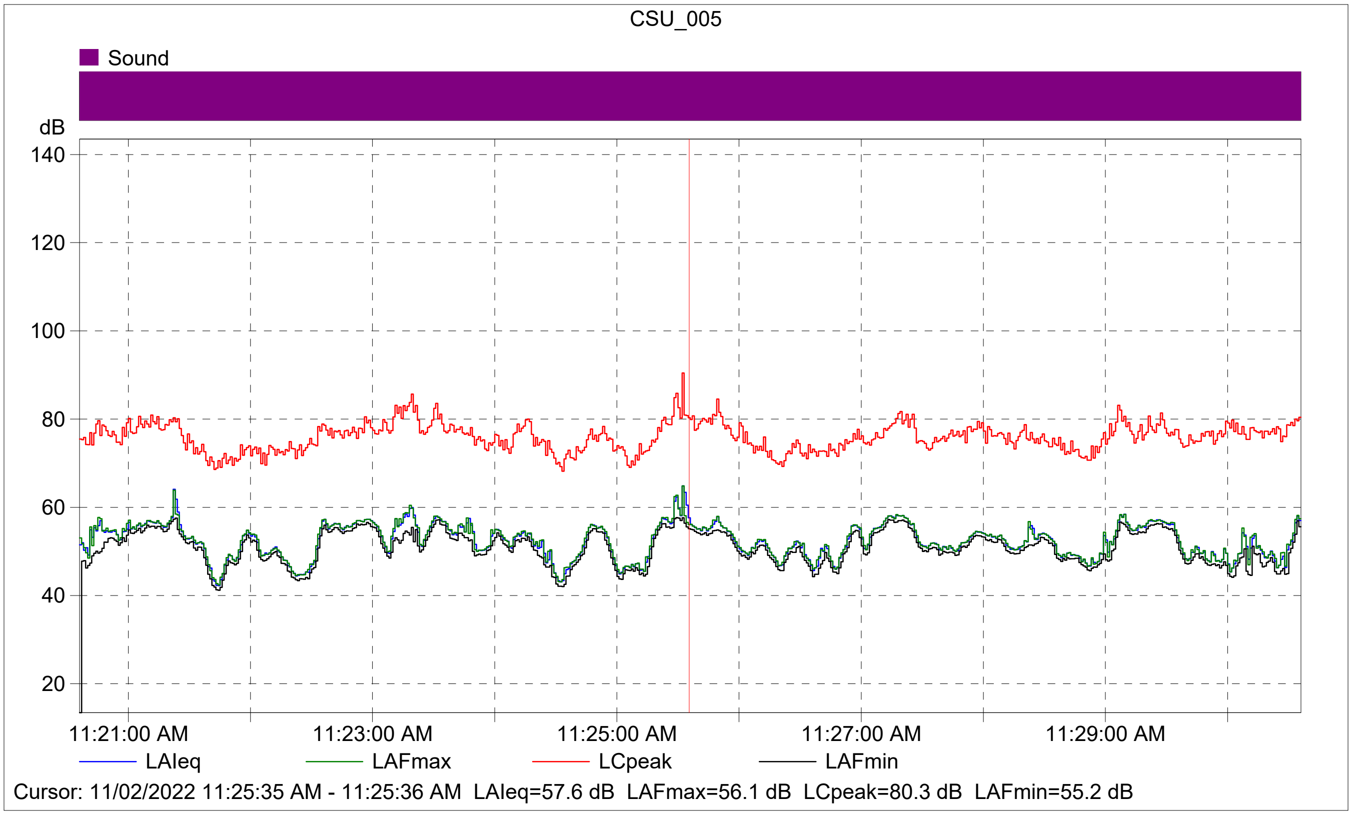
Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_005

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	53.1	64.8	41.2
Time	11:20:36 AM	11:30:36 AM	0:10:00				
Date	11/02/2022	11/02/2022					


CSU_005
dB 11/02/2022 11:20:36 AM - 11:30:36 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=53.1 dB LFmax=64.8 dB LFmin=41.2 dB

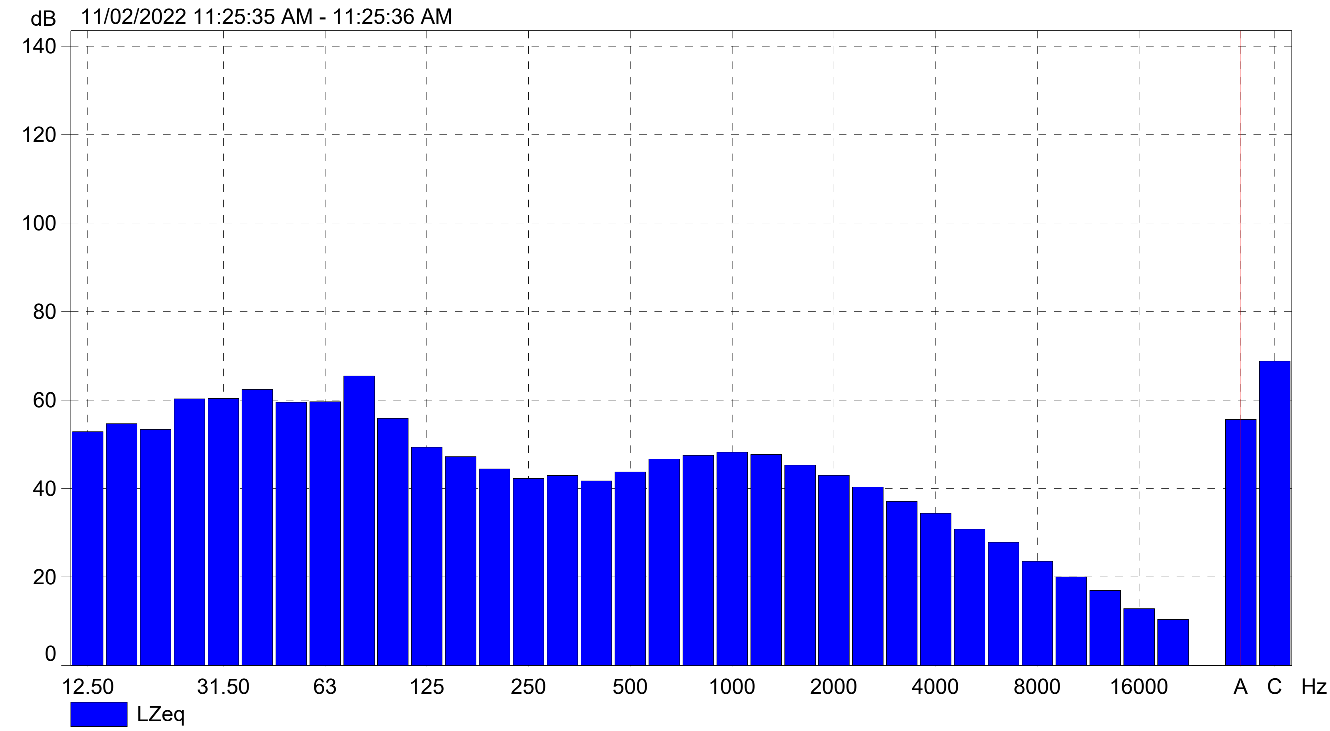

CSU_005
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 11:20:36 AM - 11:30:36 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 58.1 dB
L5 = 57.0 dB
L10 = 56.3 dB
L50 = 51.8 dB
L90 = 46.4 dB
L95 = 45.1 dB
L99 = 42.9 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



CSU_005

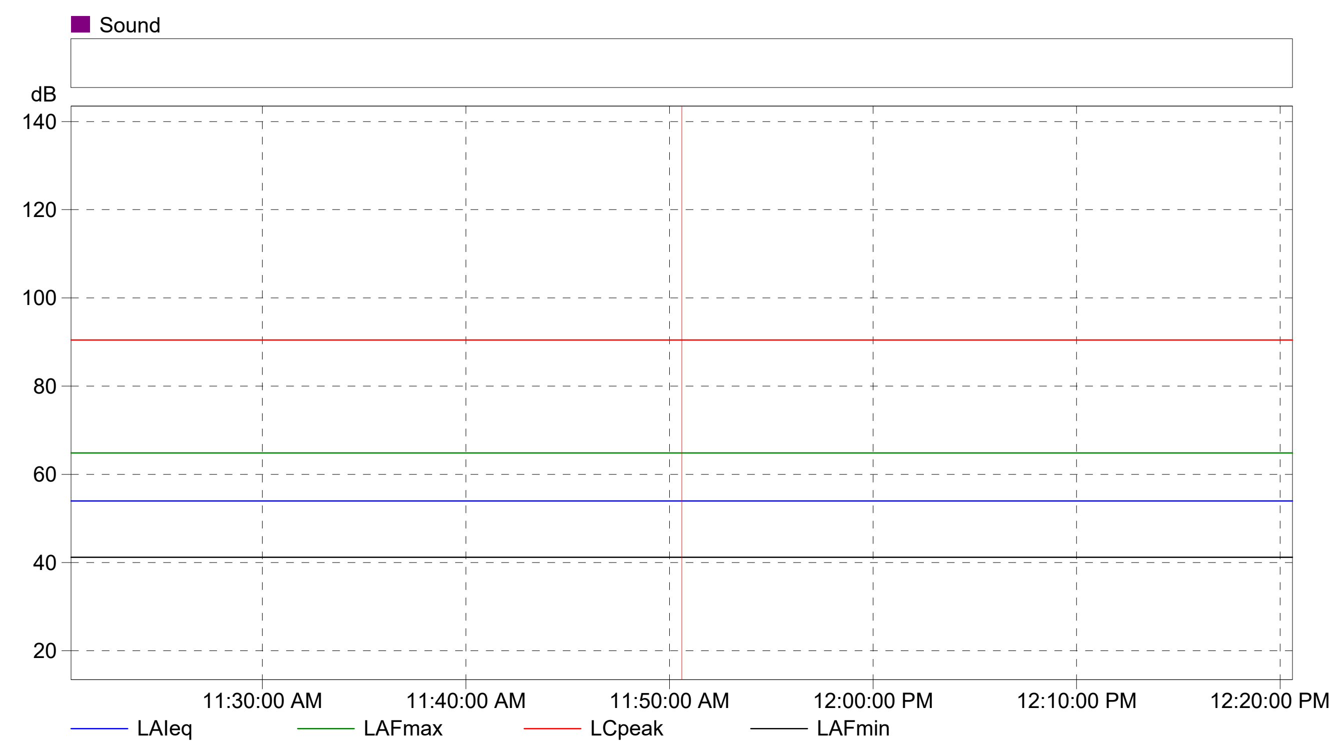
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			57.6	56.1	55.2
Time	11:25:35 AM	0:00:01			
Date	11/02/2022				

CSU_005



Cursor: (A) Leq=55.6 dB

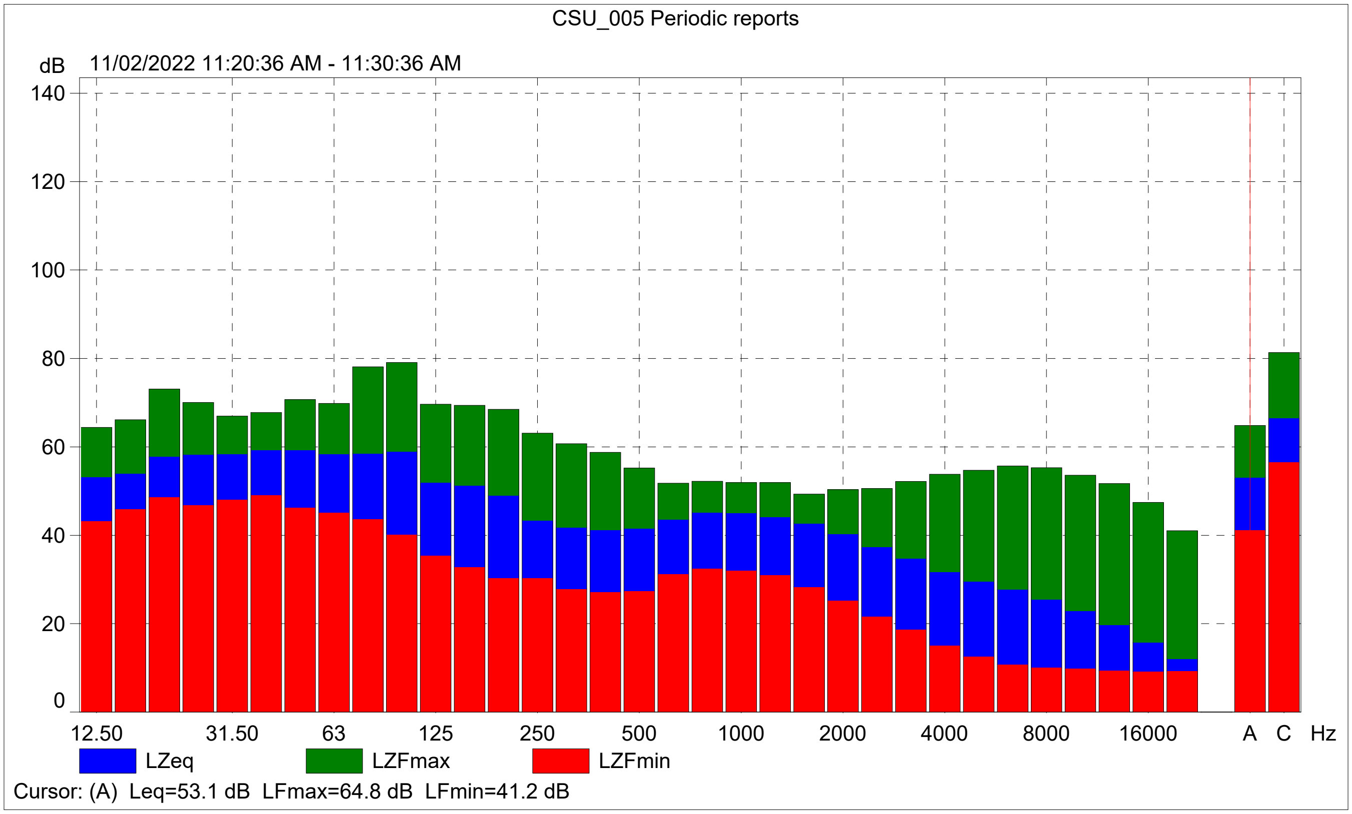
CSU_005 Periodic reports

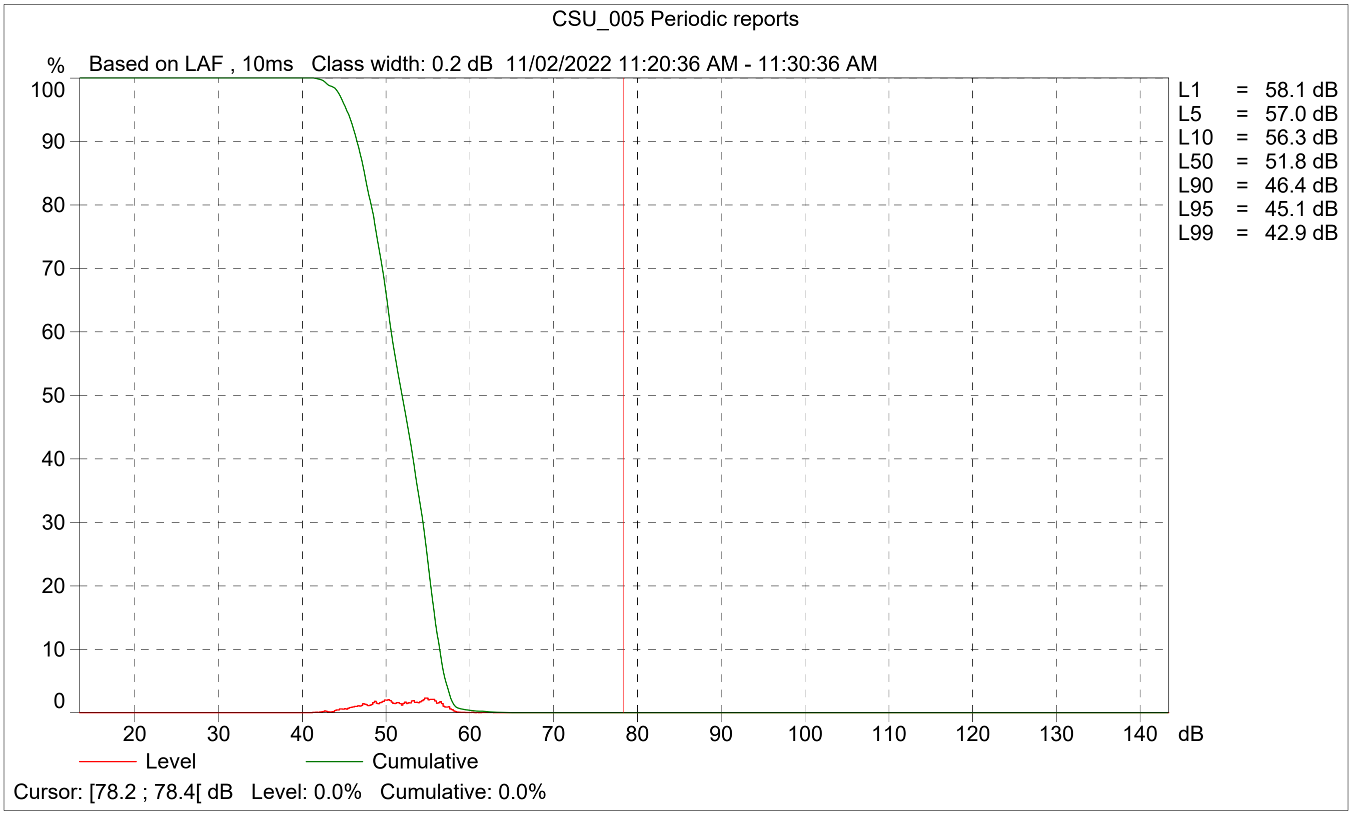


Cursor: 11/02/2022 11:20:36 AM - 12:20:36 PM LAIeq=54.0 dB LAFmax=64.8 dB LCpeak=90.4 dB LAFmin=41.2 dB

CSU_005 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	54.0	64.8	41.2
Time	11:20:36 AM	0:10:00				
Date	11/02/2022					




CSU_005 Periodic reports
%
Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 11:20:36 AM - 11:30:36 AM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 58.1 dB
L5 = 57.0 dB
L10 = 56.3 dB
L50 = 51.8 dB
L90 = 46.4 dB
L95 = 45.1 dB
L99 = 42.9 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

Site Number: NM-6-SFH			
Recorded By: Tina Yuan, Darshan Shivaiah			
Job Number: 187650			
Date: 11/02/2022			
Time: 11:45 a.m.			
Location: Along East Campus Drive, West of 875 Hills Drive			
Source of Peak Noise: Traffic along East Campus Drive, aircraft noise overhead.			
Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
62.9	79.9	45.0	99.3

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 11:44:45
End Time:		11/02/2022 11:54:45
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

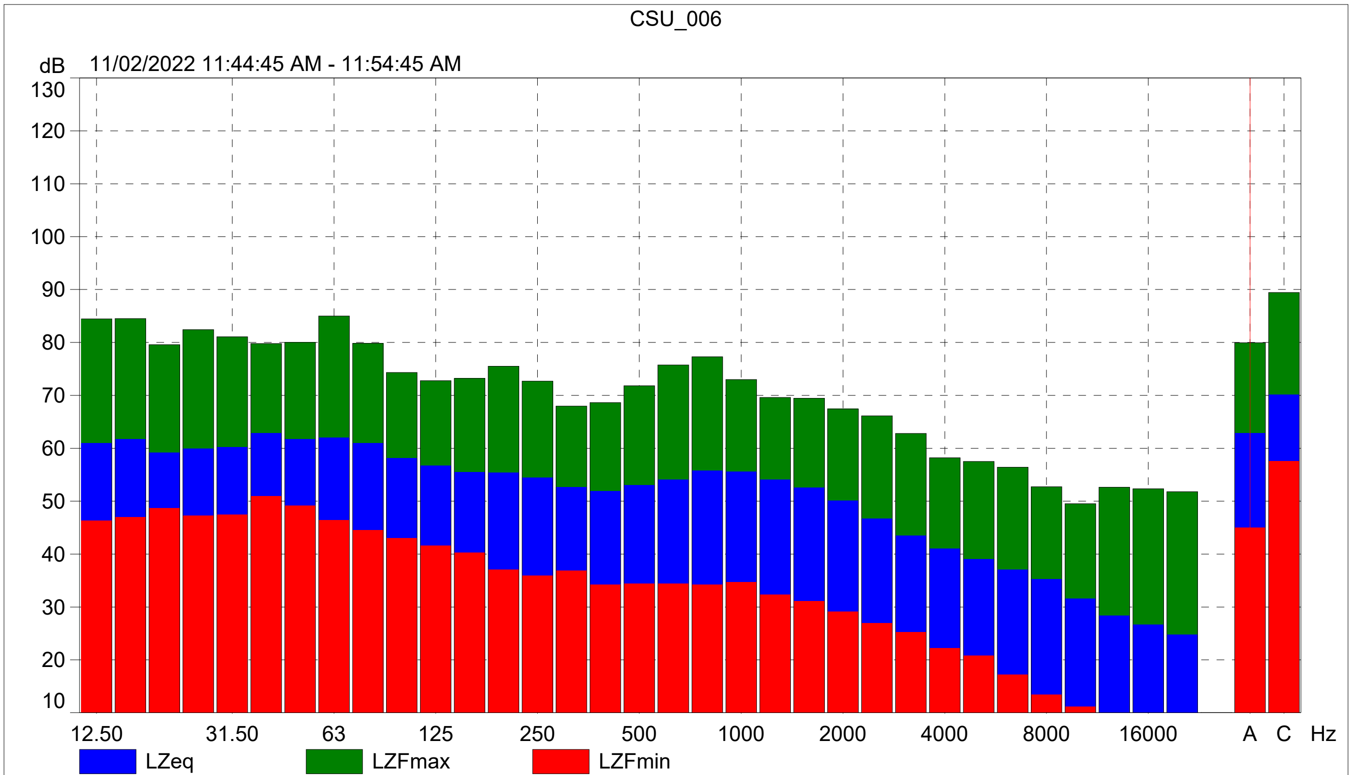
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

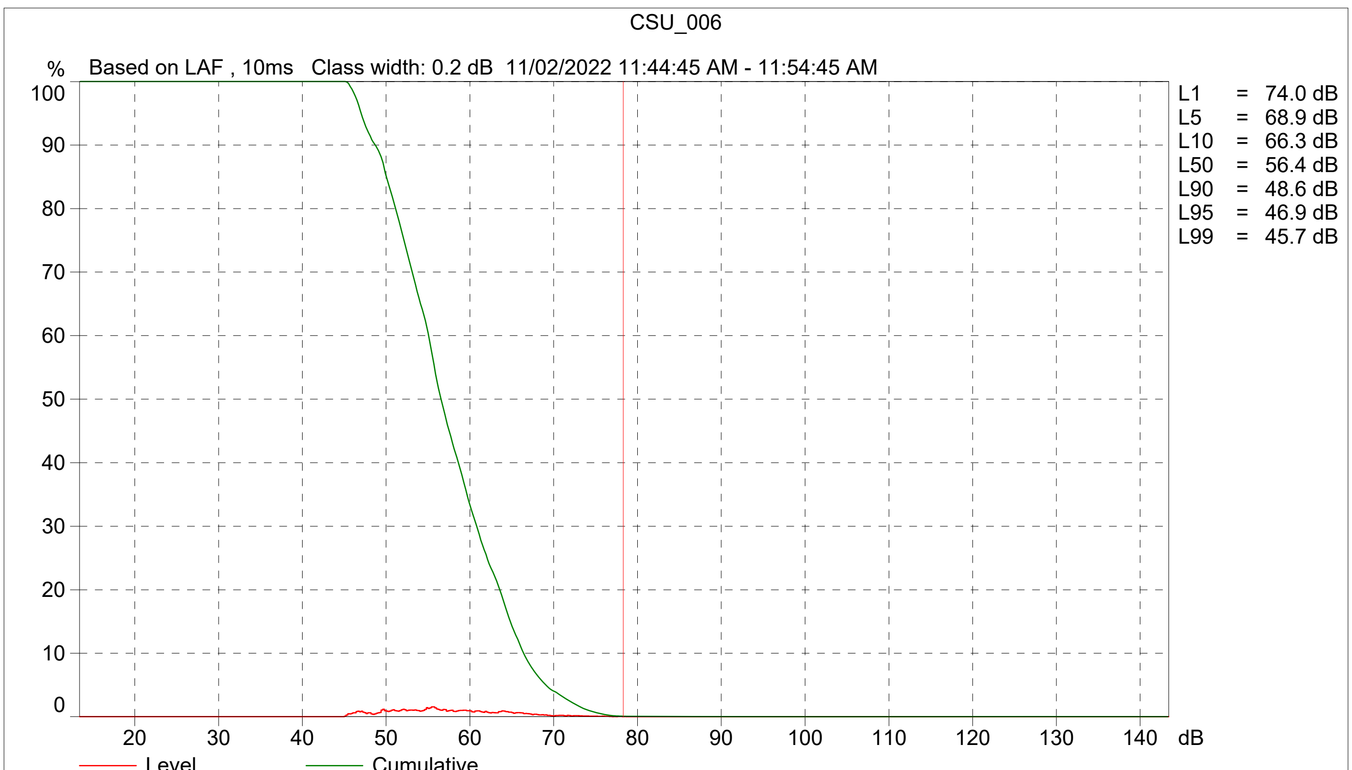
Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_006

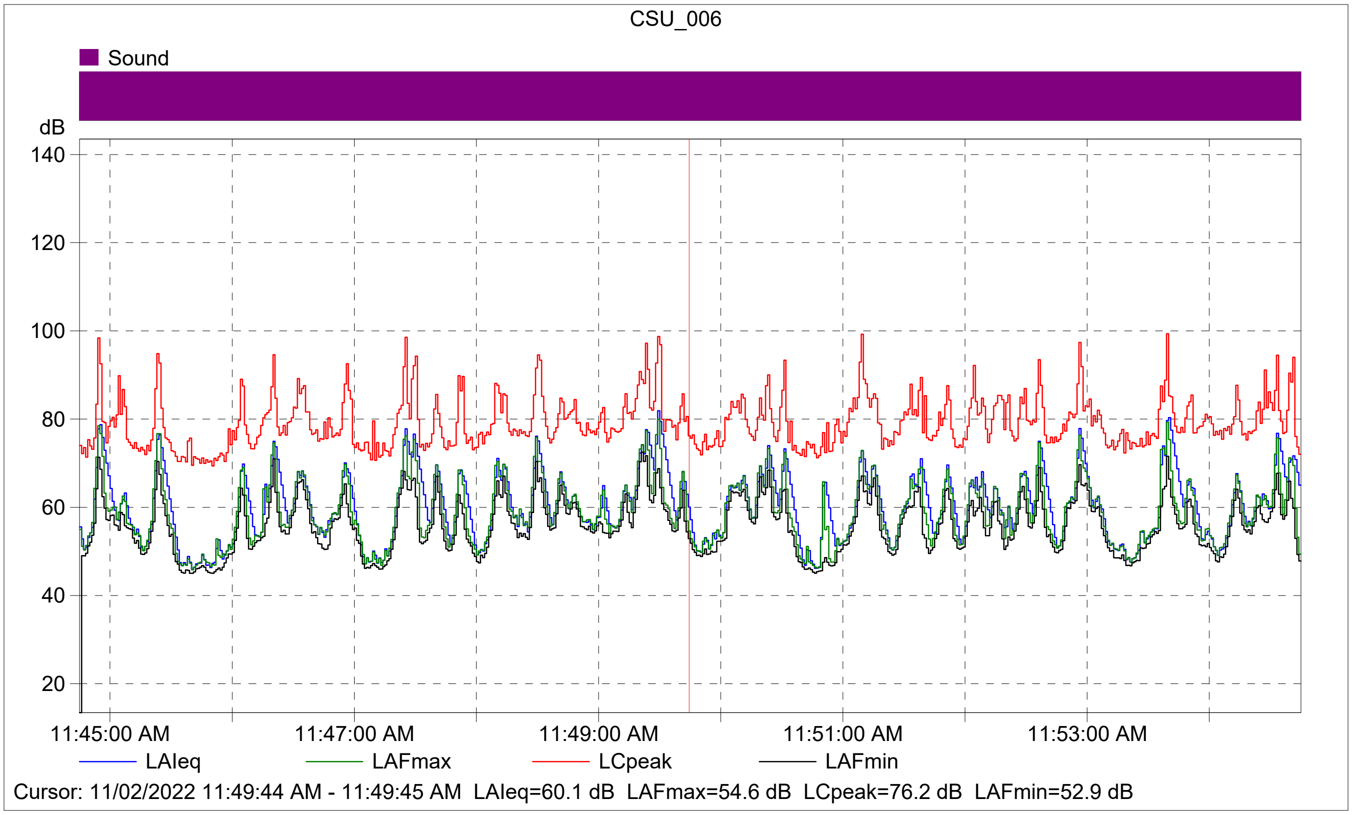
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	62.9	79.9	45.0
Time	11:44:45 AM	11:54:45 AM	0:10:00				
Date	11/02/2022	11/02/2022					



Cursor: (A) Leq=62.9 dB LFmax=79.9 dB LFmin=45.0 dB

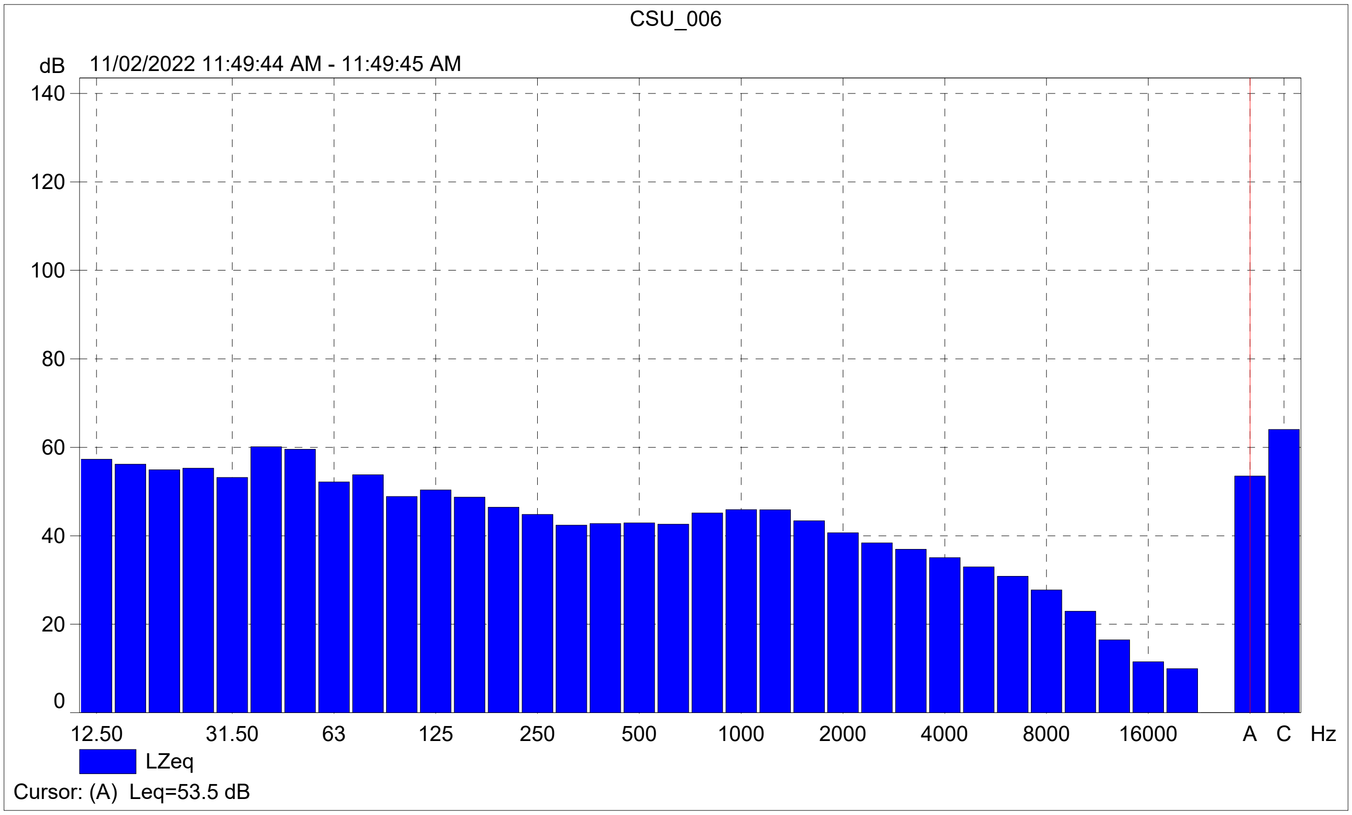


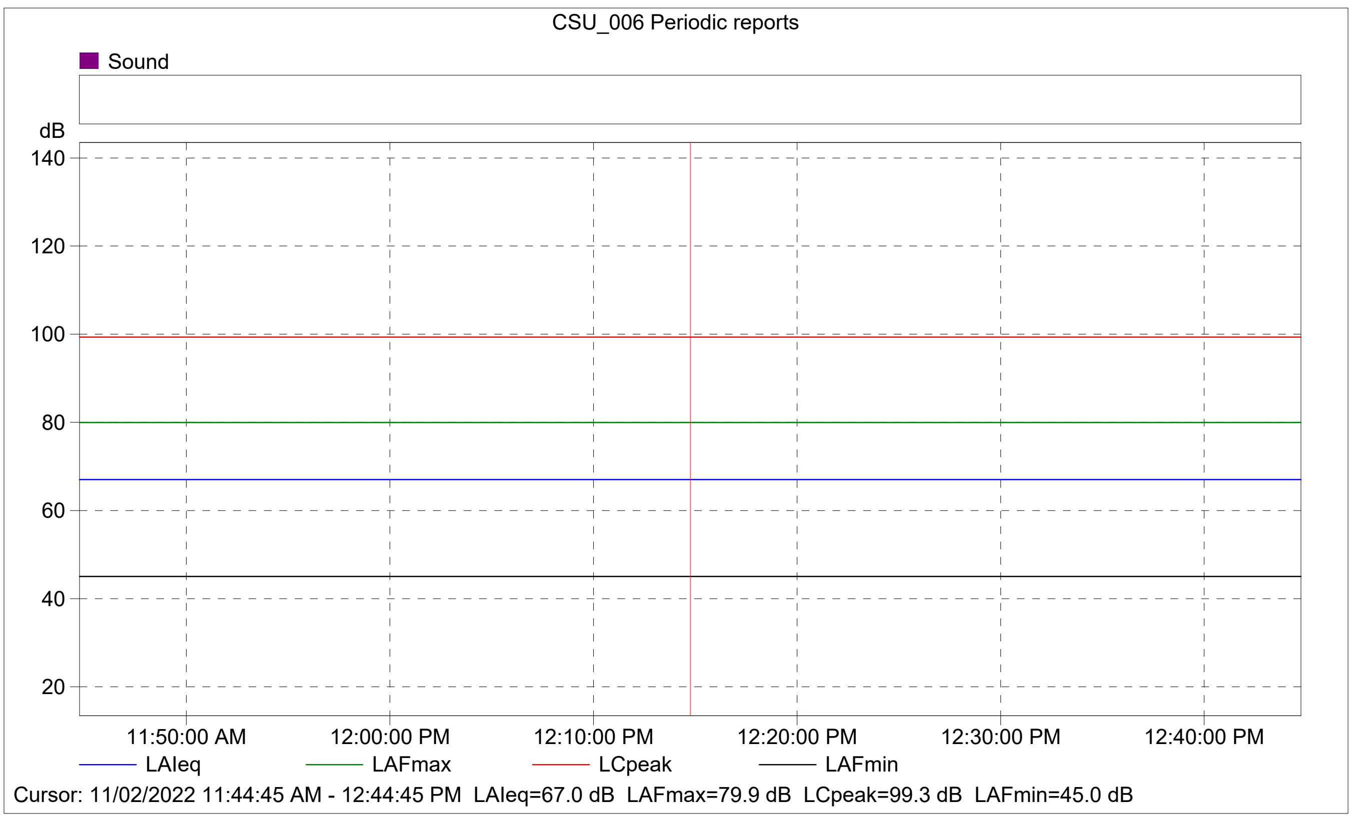
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.1%



CSU_006

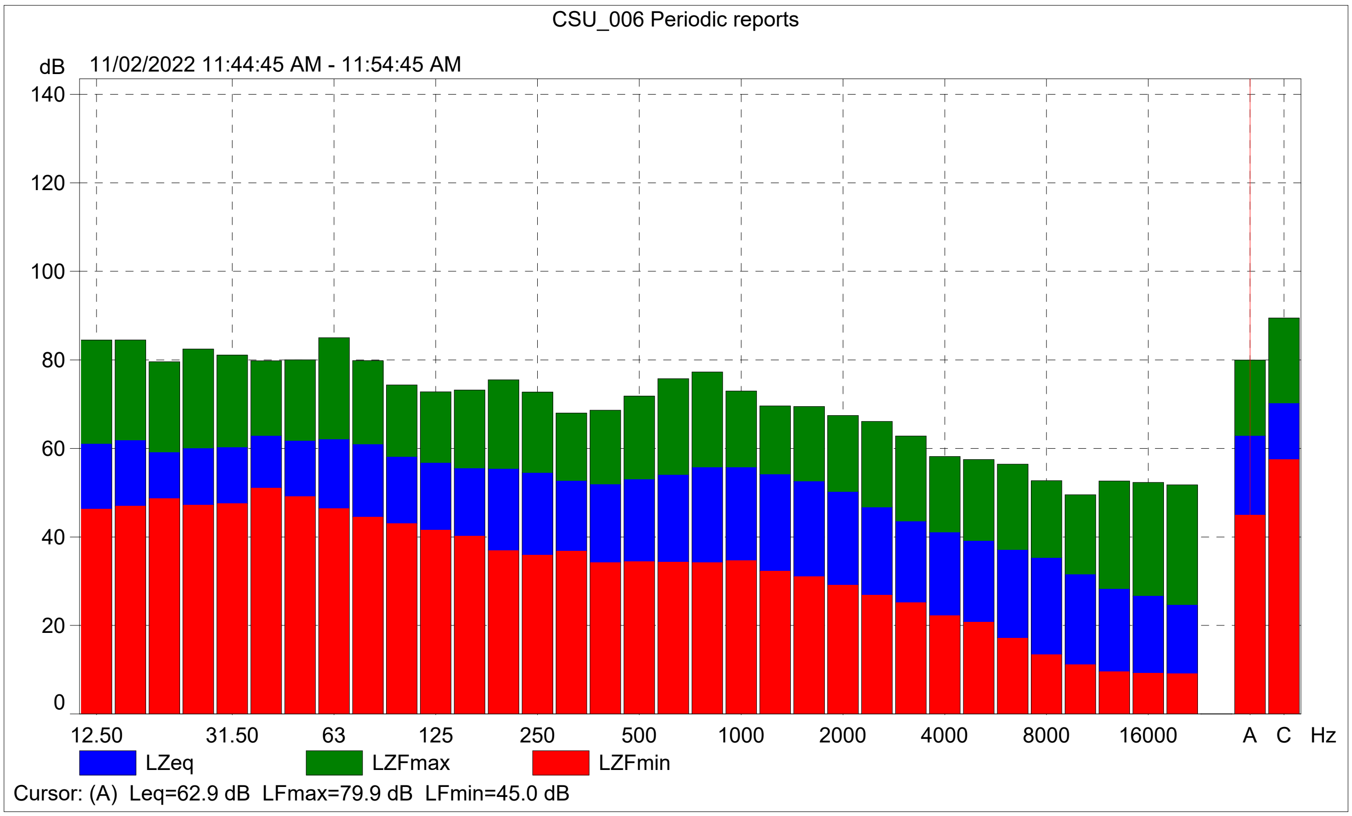
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			60.1	54.6	52.9
Time	11:49:44 AM	0:00:01			
Date	11/02/2022				


CSU_006
dB
11/02/2022 11:49:44 AM - 11:49:45 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=53.5 dB

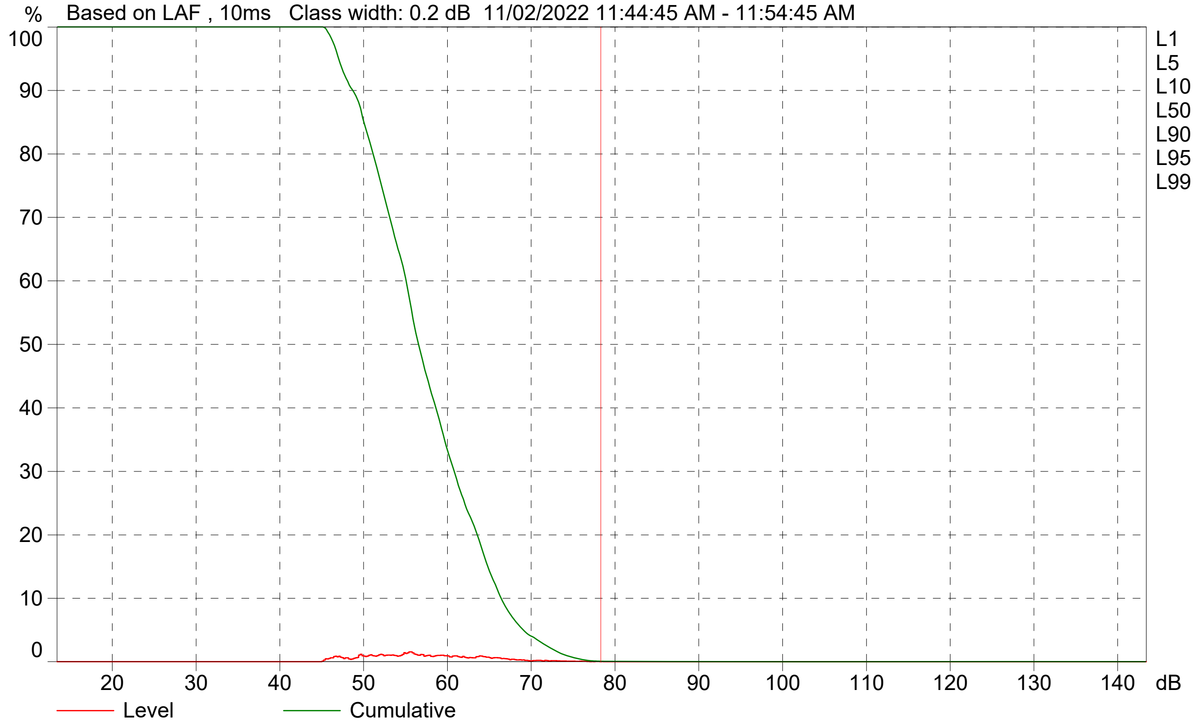

CSU_006 Periodic reports
Sound
dB
140
120
100
80
60
40
20
11:50:00 AM
12:00:00 PM
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2022 11:44:45 AM - 12:44:45 PM LAIeq=67.0 dB LAFmax=79.9 dB LCpeak=99.3 dB LAFmin=45.0 dB

CSU_006 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	67.0	79.9	45.0
Time	11:44:45 AM	0:10:00				
Date	11/02/2022					



CSU_006 Periodic reports



L1 = 74.0 dB
L5 = 68.9 dB
L10 = 66.3 dB
L50 = 56.4 dB
L90 = 48.6 dB
L95 = 46.9 dB
L99 = 45.7 dB

Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.1%

Site Number: NM-7-SFH			
Recorded By: Tina Yuan, Darshan Shivaiah			
Job Number: 187650			
Date: 11/02/2022			
Time: 12:06 a.m.			
Location: In front of 1560 Park Avenue, along the sidewalk.			
Source of Peak Noise: Traffic noise along Park Avenue and Pacific Coast Highway. Aircraft noise overhead.			
Noise Data			
Leq (dB)	**Lmax(dB)**	**Lmin (dB)**	**Peak (dB)**
53.0	75.0	43.5	89.0

Equipment						
Category	**Type**	**Vendor**	**Model**	**Serial No.**	**Cert. Date**	**Note**
Sound	Sound Level Meter	**Brüel & Kjær**	**2250**	**3011133**	**03/10/2022**	
	Microphone	**Brüel & Kjær**	**4189**	**3086765**	**03/10/2022**	
	Preamp	**Brüel & Kjær**	**ZC 0032**	**25380**	**03/10/2022**	
	Calibrator	**Brüel & Kjær**	**4231**	**2545667**	**03/10/2022**	

Weather Data			
Est.	**Duration:** 10 minutes		**Sky:** Partially Cloudy
	Note: dBA Offset = 0.00		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	**Temperature (degrees Fahrenheit)**	**Barometer Pressure (inches)**
	5	62	30.02

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 4.7.6
Start Time:		11/02/2022 12:06:23
End Time:		11/02/2022 12:16:23
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		142.19

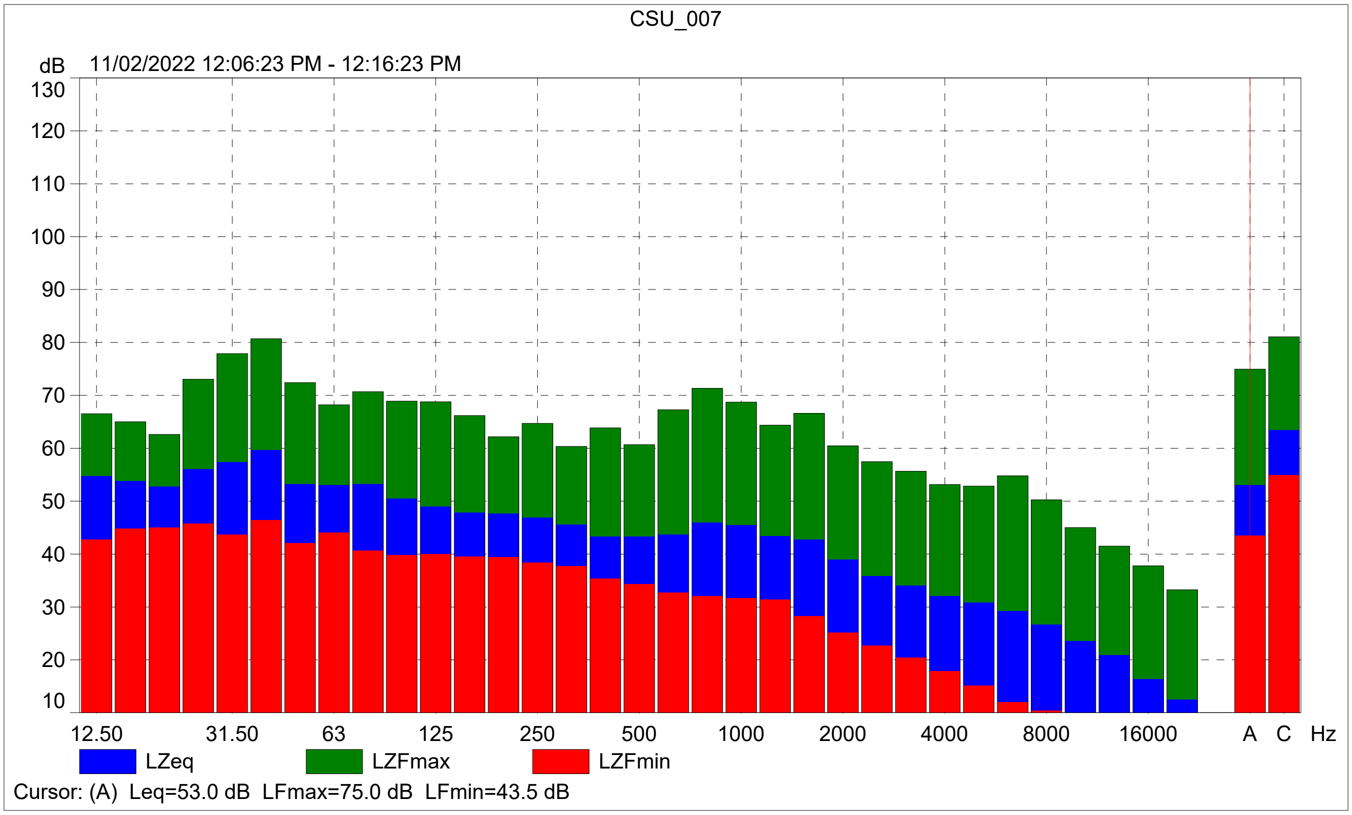
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		3011133
Microphone Serial Number:		3086765
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Free-field

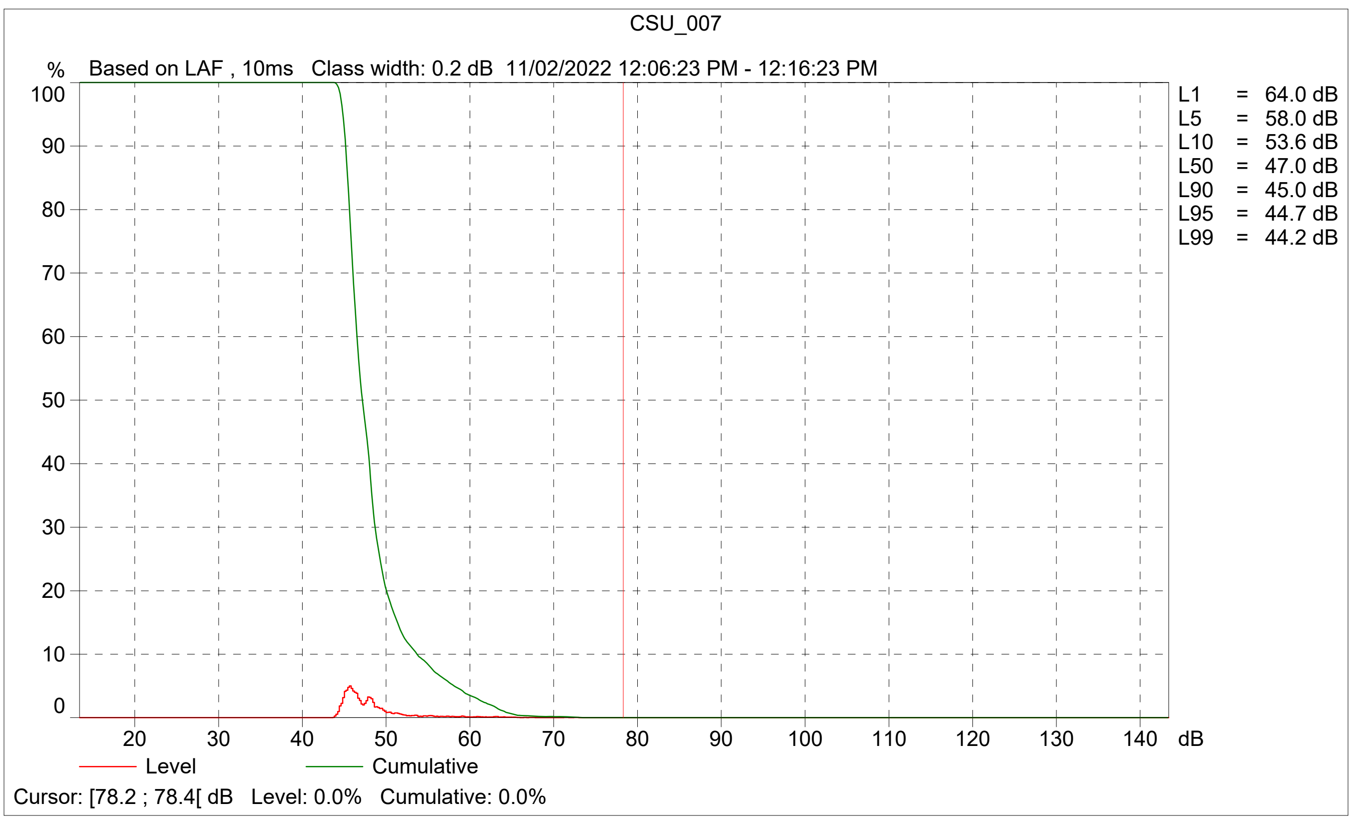
Calibration Time:		11/02/2022 09:04:04
Calibration Type:		External reference
Sensitivity:		43.2917363941669 mV/Pa

CSU_007

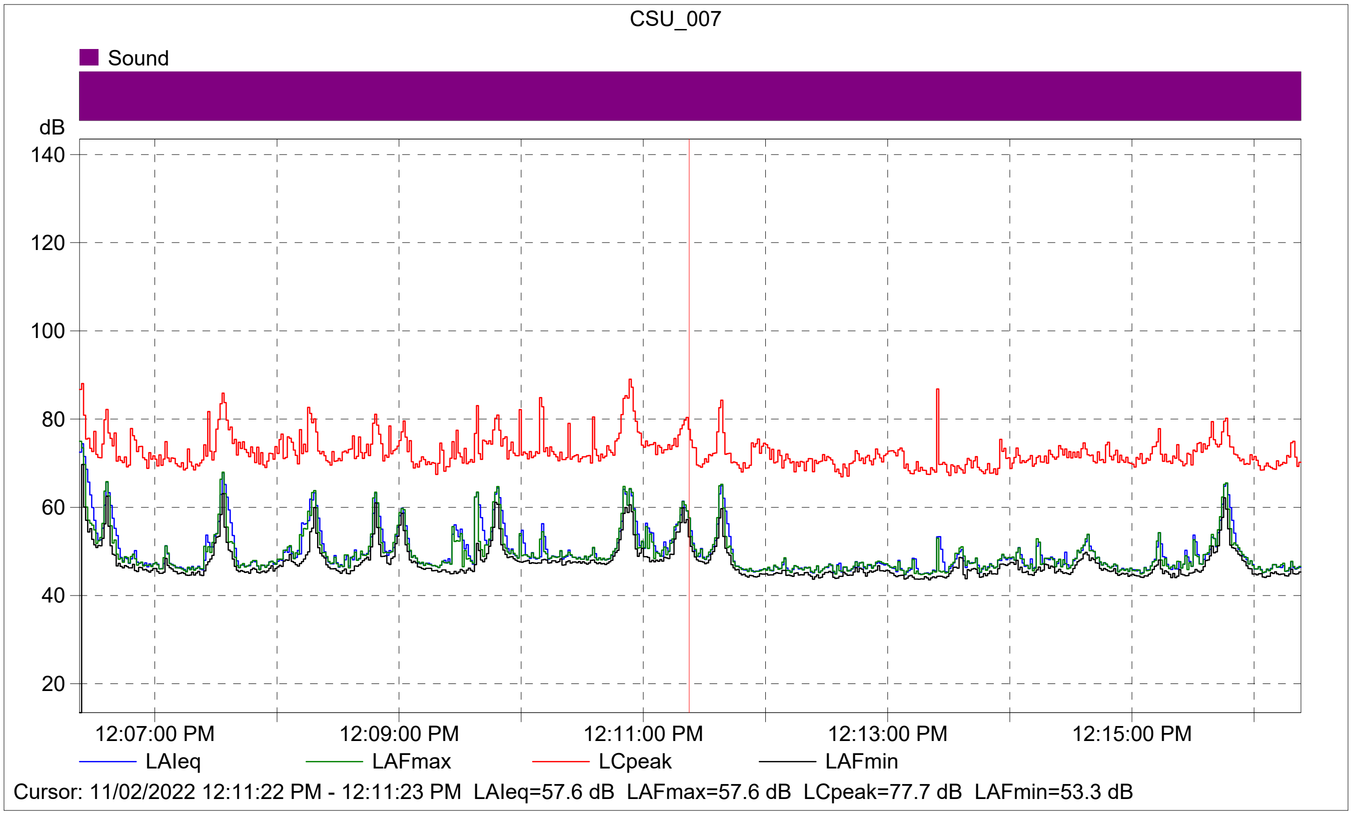
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	53.0	75.0	43.5
Time	12:06:23 PM	12:16:23 PM	0:10:00				
Date	11/02/2022	11/02/2022					



CSU_007
dB 11/02/2022 12:06:23 PM - 12:16:23 PM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=53.0 dB LFmax=75.0 dB LFmin=43.5 dB

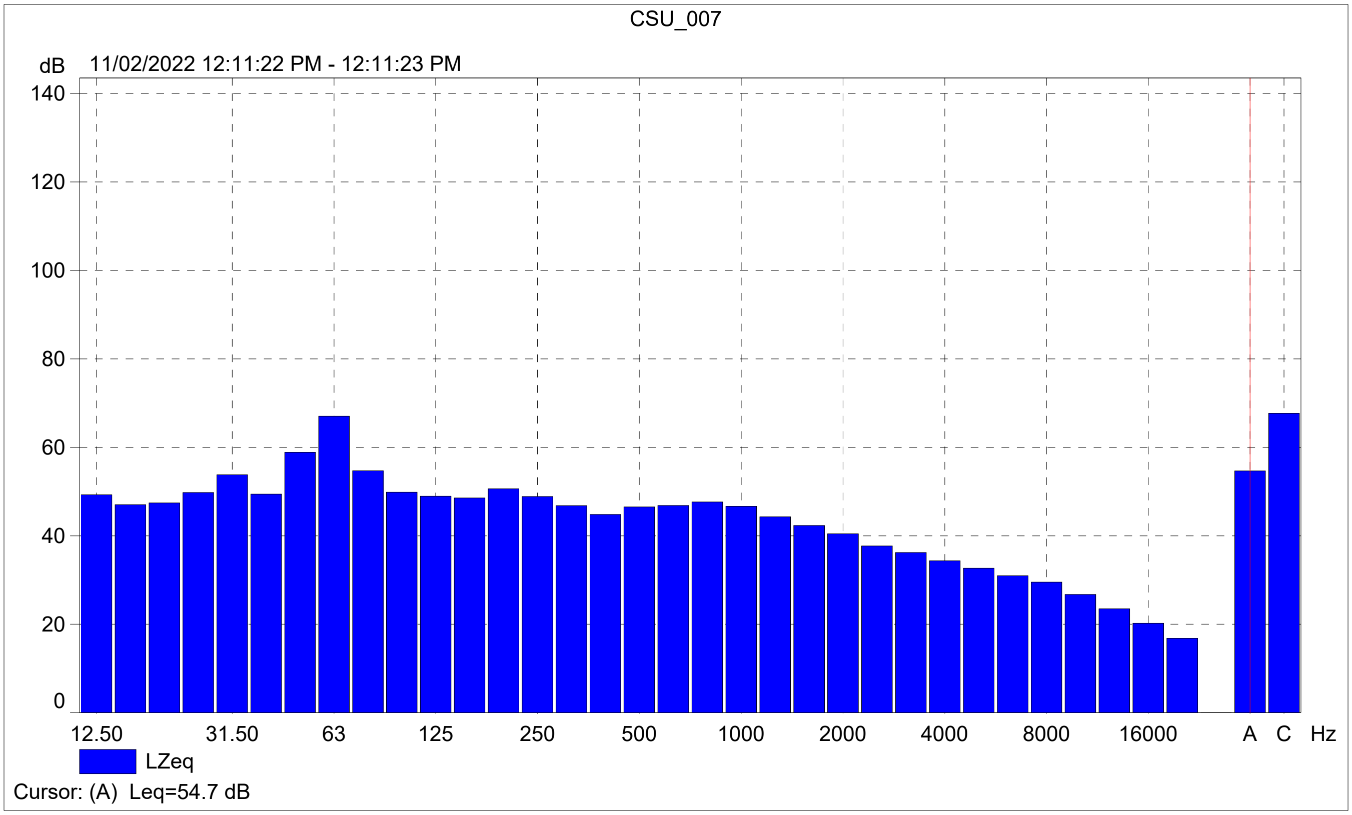


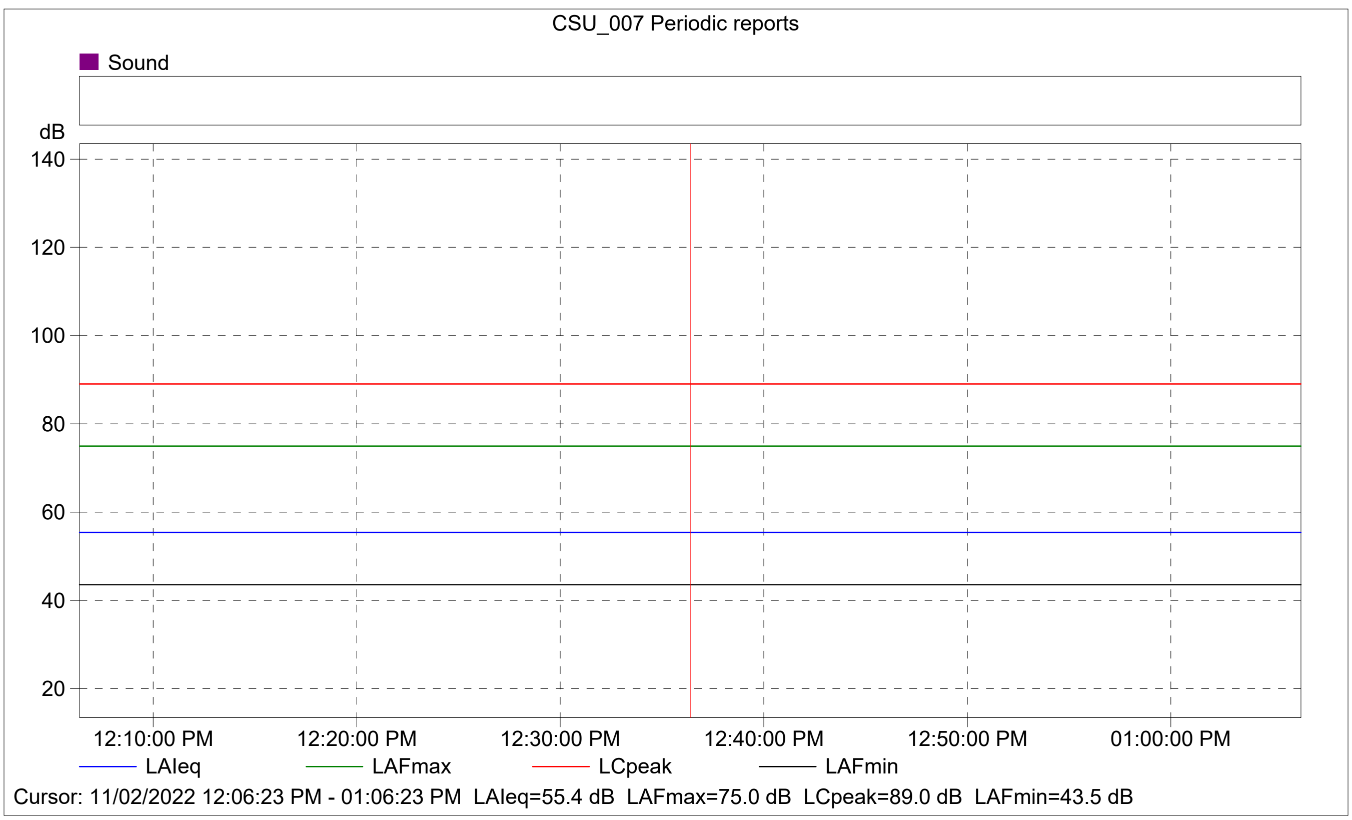
CSU_007
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 12:06:23 PM - 12:16:23 PM
100
90
80
70
60
50
40
30
20
10
0
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 64.0 dB
L5 = 58.0 dB
L10 = 53.6 dB
L50 = 47.0 dB
L90 = 45.0 dB
L95 = 44.7 dB
L99 = 44.2 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%



CSU_007

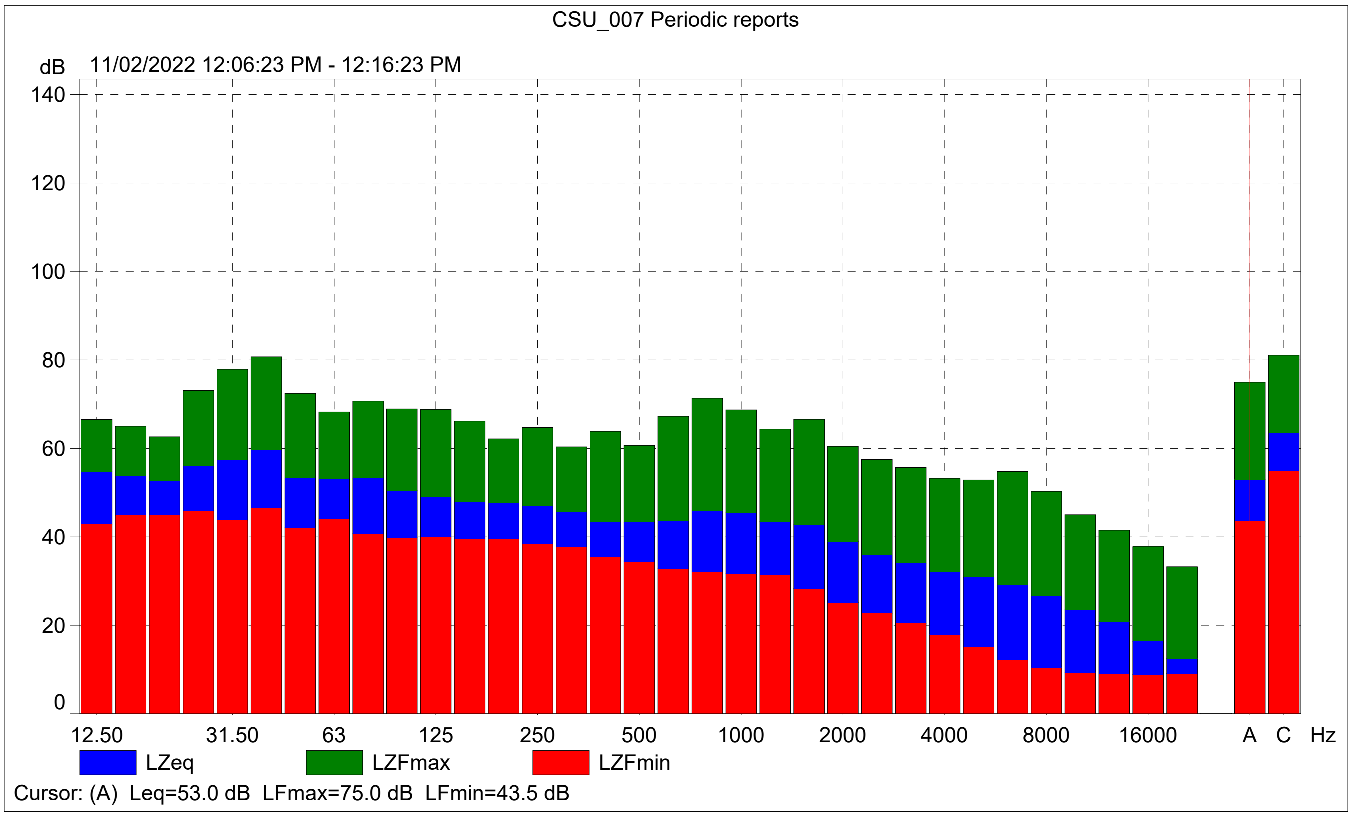
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			57.6	57.6	53.3
Time	12:11:22 PM	0:00:01			
Date	11/02/2022				

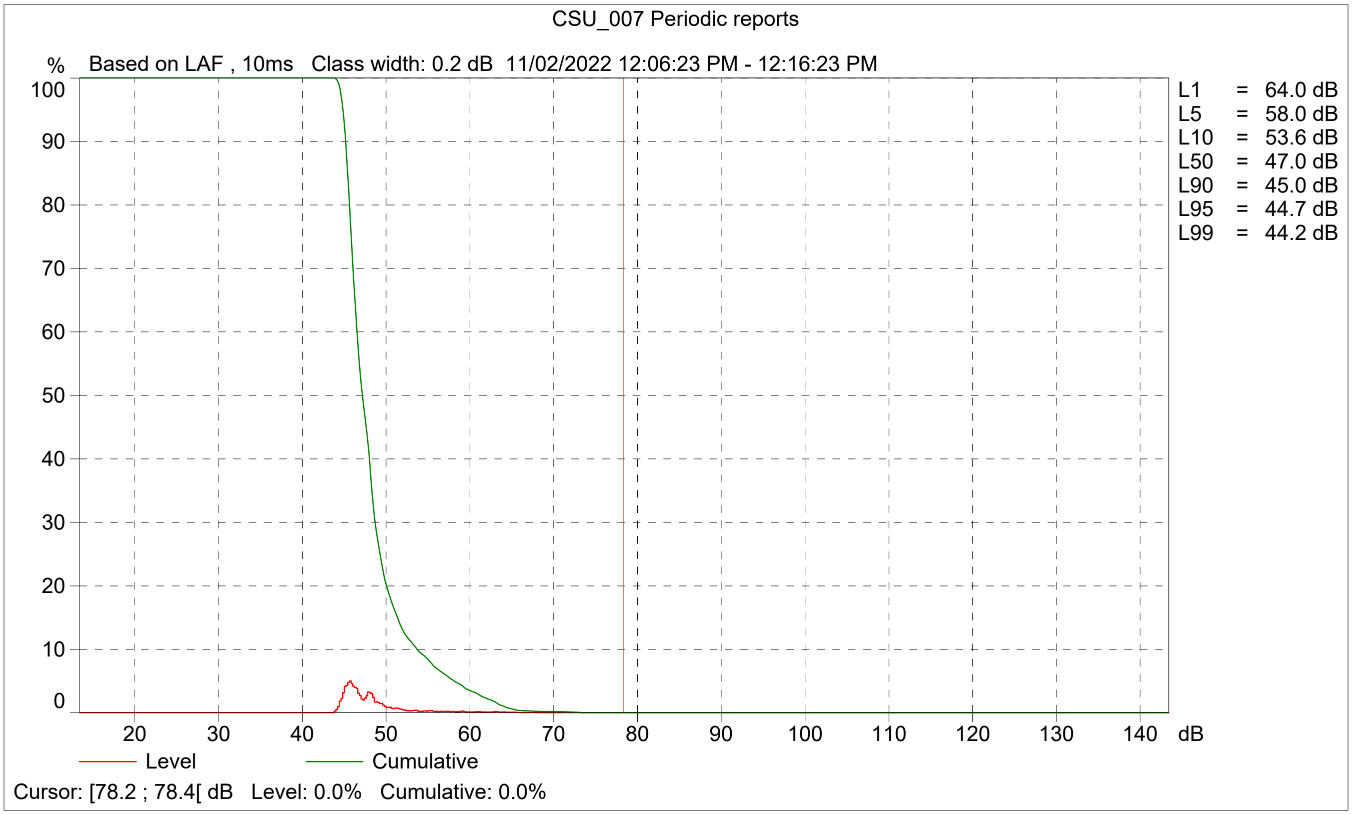

CSU_007
dB
11/02/2022 12:11:22 PM - 12:11:23 PM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
Cursor: (A) Leq=54.7 dB


CSU_007 Periodic reports
Sound
dB
140
120
100
80
60
40
20
12:10:00 PM
12:20:00 PM
12:30:00 PM
12:40:00 PM
12:50:00 PM
01:00:00 PM
LAIeq
LAFmax
LCpeak
LAFmin
Cursor: 11/02/2022 12:06:23 PM - 01:06:23 PM LAIeq=55.4 dB LAFmax=75.0 dB LCpeak=89.0 dB LAFmin=43.5 dB

CSU_007 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	55.4	75.0	43.5
Time	12:06:23 PM	0:10:00				
Date	11/02/2022					





CSU_007 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 11/02/2022 12:06:23 PM - 12:16:23 PM
100
90
80
70
60
50
40
30
20
10
0
20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 64.0 dB
L5 = 58.0 dB
L10 = 53.6 dB
L50 = 47.0 dB
L90 = 45.0 dB
L95 = 44.7 dB
L99 = 44.2 dB
Level
Cumulative
Cursor: [78.2 ; 78.4[dB Level: 0.0% Cumulative: 0.0%

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 187650
Project Name: CSU Long Beach Master Plan EIR
Scenario: Existing

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers
Community Noise Descriptor: L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.50%	12.90%	9.60%
Medium-Duty Trucks	84.80%	4.90%	10.30%
Heavy-Duty Trucks	86.50%	2.70%	10.80%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Distance from Centerline of Roadway: CNEL at 100 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
North Bellflower Blvd													
Between San Deigo Freeway and East 23rd Street	8	16	31,784	35	0.5	1.8%	0.7%	64.8	-	97	209	451	100
Between Garford Street and East Atherton Street	10	16	22,920	40	0.5	1.8%	0.7%	65.3	-	105	227	489	100
Between Atherton Street and Beach Drive	5	5	22,500	40	0.5	1.8%	0.7%	63.9	-	85	182	393	100
Between Beach Drive and East 7th Street	6	16	23,103	35	0.5	1.8%	0.7%	63.0	-	73	158	341	100
Palo Verde Ave													
Between East Stearns Street and East Atherton Street	5	12	19,650	35	0.5	1.8%	0.7%	62.1	-	64	138	297	100
Between East Atherton Street and East Anaheim Street	5	12	12,465	35	0.5	1.8%	0.7%	60.1	-	-	102	219	100
North Studebaker Road													
Between East Willow Street and East Stearns Street	7	12	21,183	35	0.5	1.8%	0.7%	62.7	-	71	152	328	100
Between East Stearns Street and East Atherton Street	10	16	17,911	35	0.5	1.8%	0.7%	63.0	-	-	158	339	100
Between East Anahiem Road and CA-22	4	12	24,021	40	0.5	1.8%	0.7%	64.2	-	88	189	408	100
East Atherton Street													
Between Xmeno Avenue and Clark Avenue	4	10	11,191	35	0.5	1.8%	0.7%	59.5	-	-	93	200	100
Between Clark Avenue and North Bellflower Blvd	5	10	14,914	35	0.5	1.8%	0.7%	60.9	-	-	114	246	100
Between North Bellflower Blvd and Merriam Way	4	12	14,211	25	0.5	1.8%	0.7%	58.1	-	-	74	160	100
Between Merrian Way and Palo Verde Ave	6	12	15,396	25	0.5	1.8%	0.7%	58.7	-	-	82	176	100
Between Palo Verde Ave and N Studerbaker Road	6	12	7,910	25	0.5	1.8%	0.7%	55.8	-	-	-	113	100
East Anaheim Road													
Between Palo Verde Ave and North Studebaker Road	4	0	8,339	25	0.5	1.8%	0.7%	55.7	-	-	51	111	100
East 7th Street													
Between Bellflower Blvd and E Campus Drive	5	0	69,364	35	0.5	1.8%	0.7%	67.5	68	146	314	676	100
Between East Campus Drive and North Studebaker Road	8	16	72,534	40	0.5	1.8%	0.7%	69.7	96	206	443	955	100
State Route 22													
East of Studebaker Road	4	30	100,443	45	0.5	1.8%	0.7%	71.8	131	282	608	1,309	100

"-" = contour is located within the roadway right-of-way.

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 187650
Project Name: CSU Long Beach Master Plan EIR
Scenario: Existing+Project

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes:	Fehr & Peers
Community Noise Descriptor:	L_{dn}: ______ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.50%	12.90%	9.60%
Medium-Duty Trucks	84.80%	4.90%	10.30%
Heavy-Duty Trucks	86.50%	2.70%	10.80%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Distance from Centerline of Roadway CNEL at 100 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
North Bellflower Blvd													
Between San Deigo Freeway and East 23rd Street	8	16	33,559	35	0.5	1.8%	0.7%	65.0	-	101	217	467	100
Between Garford Street and East Atherton Street	10	16	24,949	40	0.5	1.8%	0.7%	65.7	-	112	240	518	100
Between Atherton Street and Beach Drive	5	5	23,514	40	0.5	1.8%	0.7%	64.1	-	87	188	405	100
Between Beach Drive and East 7th Street	6	16	23,991	35	0.5	1.8%	0.7%	63.2	-	75	162	350	100
Palo Verde Ave													
Between East Stearns Street and East Atherton Street	5	12	22,237	35	0.5	1.8%	0.7%	62.6	-	69	150	322	100
Between East Atherton Street and East Anaheim Street	5	12	13,733	35	0.5	1.8%	0.7%	60.5	-	-	108	234	100
North Studebaker Road													
Between East Willow Street and East Stearns Street	7	12	22,071	35	0.5	1.8%	0.7%	62.9	-	73	156	337	100
Between East Stearns Street and East Atherton Street	10	16	19,306	35	0.5	1.8%	0.7%	63.3	-	-	166	357	100
Between East Anahiem Road and CA-22	4	12	25,302	40	0.5	1.8%	0.7%	64.4	-	91	196	422	100
East Atherton Street													
Between Xmeno Avenue and Clark Avenue	4	10	12,256	35	0.5	1.8%	0.7%	59.9	-	-	99	212	100
Between Clark Avenue and North Bellflower Blvd	5	10	16,119	35	0.5	1.8%	0.7%	61.2	-	56	120	259	100
Between North Bellflower Blvd and Merriam Way	4	12	16,747	25	0.5	1.8%	0.7%	58.8	-	-	83	179	100
Between Merrian Way and Palo Verde Ave	6	12	18,059	25	0.5	1.8%	0.7%	59.4	-	-	91	195	100
Between Palo Verde Ave and N Studerbaker Road	6	12	9,343	25	0.5	1.8%	0.7%	56.5	-	-	-	126	100
East Anaheim Road													
Between Palo Verde Ave and North Studebaker Road	4	0	9,835	25	0.5	1.8%	0.7%	56.4	-	-	57	124	100
East 7th Street													
Between Bellflower Blvd and E Campus Drive	5	0	70,632	35	0.5	1.8%	0.7%	67.5	68	147	318	684	100
Between East Campus Drive and North Studebaker Road	8	16	73,891	40	0.5	1.8%	0.7%	69.8	97	208	449	967	100
State Route 22													
East of Studebaker Road	4	30	103,017	45	0.5	1.8%	0.7%	71.9	133	287	618	1,331	100

"-" = contour is located within the roadway right-of-way.

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 187650
Project Name: CSU Long Beach Master Plan EIR
Scenario: Future low-build

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers
Community Noise Descriptor: L_{dn}: ______ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.50%	12.90%	9.60%
Medium-Duty Trucks	84.80%	4.90%	10.30%
Heavy-Duty Trucks	86.50%	2.70%	10.80%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Distance from Centerline of Roadway: CNEL at 100 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
North Bellflower Blvd													
Between San Deigo Freeway and East 23rd Street	8	16	30,157	35	0.5	1.8%	0.7%	64.6	-	94	202	435	100
Between Garford Street and East Atherton Street	10	16	21,494	40	0.5	1.8%	0.7%	65.1	-	101	218	469	100
Between Atherton Street and Beach Drive	5	5	21,258	40	0.5	1.8%	0.7%	63.7	-	82	176	379	100
Between Beach Drive and East 7th Street	6	16	22,074	35	0.5	1.8%	0.7%	62.8	-	71	154	331	100
Palo Verde Ave													
Between East Stearns Street and East Atherton Street	5	12	17,653	35	0.5	1.8%	0.7%	61.6	-	60	128	276	100
Between East Atherton Street and East Anaheim Street	5	12	11,833	35	0.5	1.8%	0.7%	59.9	-	-	98	212	100
North Studebaker Road													
Between East Willow Street and East Stearns Street	7	12	21,576	35	0.5	1.8%	0.7%	62.8	-	72	154	332	100
Between East Stearns Street and East Atherton Street	10	16	17,455	35	0.5	1.8%	0.7%	62.8	-	-	155	334	100
Between East Anahiem Road and CA-22	4	12	22,414	40	0.5	1.8%	0.7%	63.9	-	84	181	389	100
East Atherton Street													
Between Xmeno Avenue and Clark Avenue	4	10	11,036	35	0.5	1.8%	0.7%	59.5	-	-	92	198	100
Between Clark Avenue and North Bellflower Blvd	5	10	14,422	35	0.5	1.8%	0.7%	60.7	-	-	112	241	100
Between North Bellflower Blvd and Merriam Way	4	12	13,450	25	0.5	1.8%	0.7%	57.8	-	-	72	154	100
Between Merrian Way and Palo Verde Ave	6	12	14,906	25	0.5	1.8%	0.7%	58.5	-	-	80	172	100
Between Palo Verde Ave and N Studerbaker Road	6	12	8,462	25	0.5	1.8%	0.7%	56.1	-	-	-	118	100
East Anaheim Road													
Between Palo Verde Ave and North Studebaker Road	4	0	7,949	25	0.5	1.8%	0.7%	55.5	-	-	50	107	100
East 7th Street													
Between Bellflower Blvd and E Campus Drive	5	0	69,083	35	0.5	1.8%	0.7%	67.4	67	145	313	674	100
Between East Campus Drive and North Studebaker Road	8	16	70,686	40	0.5	1.8%	0.7%	69.6	94	202	436	939	100
State Route 22													
East of Studebaker Road	4	30	96,726	45	0.5	1.8%	0.7%	71.6	128	275	592	1,276	100

"-" = contour is located within the roadway right-of-way.

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 187650
Project Name: CSU Long Beach Master Plan EIR
Scenario: Future high-build

Background Information

Model Description:	FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes:	Fehr & Peers
Community Noise Descriptor:	L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.50%	12.90%	9.60%
Medium-Duty Trucks	84.80%	4.90%	10.30%
Heavy-Duty Trucks	86.50%	2.70%	10.80%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	CNEL at 100 Feet	Distance to Contour 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist
North Bellflower Blvd													
Between San Deigo Freeway and East 23rd Street	8	16	31,932	35	0.5	1.8%	0.7%	64.8	-	97	210	452	100
Between Garford Street and East Atherton Street	10	16	23,523	40	0.5	1.8%	0.7%	65.5	-	107	231	498	100
Between Atherton Street and Beach Drive	5	5	22,272	40	0.5	1.8%	0.7%	63.9	-	84	181	390	100
Between Beach Drive and East 7th Street	6	16	22,962	35	0.5	1.8%	0.7%	63.0	-	73	158	340	100
Palo Verde Ave													
Between East Stearns Street and East Atherton Street	5	12	20,240	35	0.5	1.8%	0.7%	62.2	-	65	141	303	100
Between East Atherton Street and East Anaheim Street	5	12	13,101	35	0.5	1.8%	0.7%	60.3	-	-	105	227	100
North Studebaker Road													
Between East Willow Street and East Stearns Street	7	12	22,464	35	0.5	1.8%	0.7%	63.0	-	73	158	341	100
Between East Stearns Street and East Atherton Street	10	16	18,850	35	0.5	1.8%	0.7%	63.2	-	-	163	351	100
Between East Anahiem Road and CA-22	4	12	23,695	40	0.5	1.8%	0.7%	64.1	-	87	188	404	100
East Atherton Street													
Between Xmeno Avenue and Clark Avenue	4	10	12,101	35	0.5	1.8%	0.7%	59.9	-	-	98	211	100
Between Clark Avenue and North Bellflower Blvd	5	10	15,627	35	0.5	1.8%	0.7%	61.1	-	-	118	254	100
Between North Bellflower Blvd and Merriam Way	4	12	15,986	25	0.5	1.8%	0.7%	58.6	-	-	80	173	100
Between Merrian Way and Palo Verde Ave	6	12	17,569	25	0.5	1.8%	0.7%	59.2	-	-	89	192	100
Between Palo Verde Ave and N Studerbaker Road	6	12	9,895	25	0.5	1.8%	0.7%	56.8	-	-	-	131	100
East Anaheim Road													
Between Palo Verde Ave and North Studebaker Road	4	0	9,445	25	0.5	1.8%	0.7%	56.2	-	-	56	120	100
East 7th Street													
Between Bellflower Blvd and E Campus Drive	5	0	70,351	35	0.5	1.8%	0.7%	67.5	68	147	317	683	100
Between East Campus Drive and North Studebaker Road	8	16	72,043	40	0.5	1.8%	0.7%	69.7	95	205	441	951	100
State Route 22													
East of Studebaker Road	4	30	99,300	45	0.5	1.8%	0.7%	71.7	130	280	603	1,299	100

"-" = contour is located within the roadway right-of-way.

APPENDIX I

Water Supply Information Report

California State University, Long Beach
Master Plan Update

Water Supply Information Report

Lead Agency:

The California State University
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Long Beach, California 90802-4210

Prepared by:

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May 2023

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1. EXECUTIVE SUMMARY

This Water Supply Information Report has been prepared in support of the Environmental Impact Report (EIR) for the California State University, Long Beach (CSULB) Campus Master Plan Update (proposed project), which provides a vision for the campus through horizon year 2035. Senate Bill 610 (SB 610) requires a Water Supply Assessment (WSA) to determine the water supply sufficiency for a 20-year projection in addition to the demand of existing and other planned future uses. CSULB is an entity of the California State University (CSU), a state agency, and the campus is state-owned property; therefore, development on the campus is not bound by local policies, regulations, or ordinances governing transportation. Although CSULB is not subject to SB 610, which applies only to cities or counties, the analysis contained herein has been prepared in accordance with SB 610 to support the analysis of water demand and supply for Master Plan buildout through 2035.

The purpose of this assessment is to evaluate whether the available water supplies can meet projected demands during normal, single-dry, and multiple-dry water years during a 20-year projection (through 2040). This analysis was conducted using data from CSULB and the Long Beach Water Department (LBWD), which is the water service provider for CSULB. The analysis is based in part on the LBWD's 2020 Urban Water Management Plan (UWMP).

CSULB provided water consumption data collected from water meter readings for the campus, which, for the purposes of this assessment, includes the CSULB main campus and Beachside Village property, between 2007 and 2021. Based on this data and campus population numbers, it was determined that the unit water consumption rate for the campus is 11.58 gallons per capita per day over that period. This unit water consumption rate was used to project the water demand through 2040 (although typically the rate is anticipated to decline due to water conservation efforts).

The water demand for the campus was projected based on the projected campus growth through 2040. As the campus did not experience a water supply shortage under the existing (2020) conditions scenario, this assessment compared the campus's projected increase in water demand increase against the water supply increase rate provided by the sole water supplier (LBWD) per its UWMP, concluding that the projected campus water demands can be satisfied by the projected water supplies. Therefore, available water supplies can meet projected campus demand during normal, single-dry, and multiple-dry water years through 2040.[1] The key numbers summarizing the water supply analysis are presented in **Table ES-1**.

The campus should continue to undertake efforts to reduce water consumption in order to minimize the risk of any water shortage, as presented in their 2017 Water Action Plan, 2020 Climate Action & Adaptation Plan, 2012 Landscape Master Plan, and 2011

[1] D. Wang and H. Baquerizo (LBWD), Personal Communication, March 8, 2023.

CSULB Strategic Energy Plan, as well as CSU Executive Order 0987, and the CSU Sustainability Policy.

Table ES-1. Summary of Water Supply Analysis

Description	Academic Year 2019-2020	Academic Year 2039-2020
Total Campus Population	32,699	40,181
CSULB Domestic Water Demand (MG)	138.2	169.9
CSULB Domestic Water Demand (AF)	424	521
LBWD Commercial Water Demand (AF)	11,084*	9,283
LBWD Domestic Water Demand (AF)	53,964*	51,691
LBWD Total Water Supply (AF)	84,752*	88,752
LBWD Total Water Surplus (AF)	30,788*	37,061

* LBWD 2020 UMWP does not include data of Year 2020. Data of Year 2025 was cited for sake of conservation.

2. INTRODUCTION

2.1. Purpose and Applicability of this Water Supply Information Report

This Water Supply Information Report has been prepared in support of the Environmental Impact Report (EIR) for the California State University, Long Beach (CSULB)’s Campus Master Plan Update, which provides a vision for the campus through horizon year 2035, with a focus on optimizing the existing physical assets of the campus with an assumed annual compounded growth of one percent. The purpose of this assessment is to evaluate whether water supplies can meet projected demands during normal, single-dry, and multiple-dry water years during a 20-year projection (through 2040) based on water supply demand data provided by the campus.

This analysis was conducted using data from CSULB and the Long Beach Water Department (LBWD), which is the water service provider for CSULB. The state of California has experienced some form of drought since 2011, which has resulted in water shortages. In 2018, in response to recurring drought in California, the California Legislature enacted into law new requirements for urban water suppliers to increase drought resilience and to improve communication of water shortage response actions. Suppliers are responsible for providing a reliable supply of water for their customers and must evaluate their water supply status on a regular basis and, in the case of anticipated water shortages, prepare mitigation actions. The results of these evaluations are included in the suppliers’ plans and reports, including the Urban Water Management Plan (UWMP).[2] The analysis in report is based in part on the LBWD’s 2020 UWMP.[3] The analysis is prepared in accordance with Senate Bill 610 (SB 610) for Water Supply Assessments (WSA).

2.2. Regulatory Requirements

WSAs, under SB 610, determine water supply sufficiency for a 20-year projection in addition to the demand of existing and other planned future uses. SB 610 applies only to cities and counties and is required for any project that is subject to the California Environmental Quality Act (CEQA) and proposes commercial development of more than 250,000 square feet of floor space, a retail center with more than 500,000 square feet of floor space, or more than 500 dwelling units. The CSU and its campuses do not meet the definition of a city or county under SB 610, although campus projects are subject to CEQA. Nonetheless, recent and continuing precipitation trends and water supply uncertainty have heightened concerns about the future availability of a reliable water

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2 California Department of Water Resources. Annual Water Supply and Demand Assessment. Available at https://water.ca.gov/Programs/Water-Use-And-Efficiency/Water-Supply-and-Demand-Assessment.

3 Long Beach Water Department. 2020 Urban Water Management Plan. Available at: https://lbwater.org/wp-content/uploads/2021/09/Long-Beach-Water-Department-2020-Urban-Water-Management-Plan.pdf.

supply, and the provisions of SB 610 provide useful guidance in preparing a WSA. Therefore, this analysis has been prepared in accordance with SB 610 for WSAs.

2.3. Project Description

Overview of the Project

CSULB is proposing a comprehensive update of the current Campus Master Plan, last updated in 2008, to accommodate enrollment growth, a campus population, and physical development of the campus through the horizon year 2035 (Master Plan Update, proposed project, or project). The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs. The “project” that is analyzed in this EIR includes specific development components identified in the Master Plan Update that are expected to be developed in the near-term (2-5 years), mid-term (6-10 years), and long-term (11 years or more).

Project Location and Setting

CSULB is located within the governmental jurisdictional boundary of the City of Long Beach, in southern Los Angeles County, California. The City of Long Beach is bordered by the cities of Paramount and Lakewood to the north; the Pacific Ocean to the south; the cities of Hawaiian Gardens, Cypress, and Los Alamitos, the unincorporated community of Rossmoor, and the city of Seal Beach in Orange County to the east; and the cities of Los Angeles, Carson, and Compton to the west. CSULB consists of two properties: the CSULB main campus and the Beachside Village property.

The CSULB main campus encompasses 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west. The majority of the university’s uses are located on the CSULB main campus, which comprises 84 buildings and eight colleges totaling approximately 5.8 million gross square feet of buildings.

Beachside Village, a CSU-owned student housing complex, encompasses approximately 5 acres and is located approximately 0.6 miles west of the CSULB main campus. Beachside Village is bounded by multi-family residential uses to the west and northwest, commercial uses to the north, east, and southeast, and California State Route 1 (i.e., Pacific Coast Highway) to the south and southwest.

Campus Population Projections

Student enrollment at CSULB is measured using “full-time equivalent students” or “FTES.” FTES aids the measurement of facilities utilization and need for additional instructional space by providing information on student course loads and scheduling of classes. Because CSULB is an urban commuter campus, students at CSULB can be part-time or full-time and each has different in-person attendance patterns. Thus, one student who takes 15 units is considered one FTES. For the purposes of this EIR, FTES is the most appropriate measure of student population at the campus, as opposed to headcount, because FTES provides a more accurate representation of the population that will be on-campus at a given time. Headcount totals assume that every enrolled student is on-campus full-time, which can lead to an overstatement of the campus's student population and, consequently, the associated environmental impacts. Potential impacts associated with the on-campus population (i.e., vehicle miles traveled, demand for water or public resources, solid waste generation), are analyzed proportionate to the amount of time any one student or faculty member may be on campus based on their unit loads, or staff based on their responsibilities.

The COVID-19 pandemic (beginning March 2020) has led to increases in telework and remote/online learning that have implications for the number of people on campus or traveling to and from campus. The long-term implications of the COVID-19 pandemic on remote learning and telework are still evolving, and thus, the net effect of the COVID-19 pandemic on CSULB's development and operations cannot be predicted at this time. Accordingly, the impact analysis in this EIR assumes that overall behavior within the Master Plan Update horizon year of 2035 would be similar to conditions prior to the start of the COVID-19 pandemic. Therefore, as explained in Chapter 2, Project Description, the 2019-2020 academic year (AY) data is being used as it is the most recent year of pre-pandemic in-person campus operations.

In addition to the student population, the Master Plan Update projects the associated faculty and staff, which includes Full-Time Equivalent (FTE) employees and auxiliary employees, that would be necessary to support students at CSULB. CSULB determines faculty and staff needs by evaluating the historical ratios of students to faculty as well as students to staff. Additionally, with the proposal of housing for faculty and staff as part of the proposed project, it is anticipated that a small portion of faculty and staff would reside on campus with other members of their household.

The campus population comprises students, faculty, staff, and faculty/staff household members. In horizon year 2035, the total on-campus population is anticipated to be 38,165, which includes FTES, FTE employees, auxiliary employees, and faculty/staff household members. **Table 1**, Existing and Anticipated Total Campus Population, depicts the breakdown of total on-campus FTES, FTE employees, and auxiliary employees under existing conditions and at the Master Plan Update 2035 horizon year.

Table 1. Existing and Anticipated Total Campus Population

Category	Academic Year 2019-2020	Master Plan Update Horizon Year 2035	Change (+/-)
Full-Time Equivalent Students (On-Campus)	28,876	33,334	+4,458
FTE Employees[1]	3,295	3,918	+623
Auxiliary Employees	528	628	+100
Faculty/Staff Household Members[1]	0	285[2]	+285
Total	**32,699**	**38,165**	**+5,466**

[1] Includes Faculty and Staff
[2] Due to the provision of housing for faculty and staff as part of the proposed project, it is anticipated that a small portion of faculty and staff would reside on campus with other members of their household. Based on historic data of non-student residents living on the CSULB campus, it is anticipated that 285 individuals associated with faculty and staff households would also be living on-campus.

3. EXISTING CONDITIONS

3.1. Campus Population

The total campus population for Academic Year (AY)[4] 2019-2020 (baseline year) is 32,699, which is the total number of on-campus FTES, Faculty and Staff, as shown in **Table 2**. The campus population number excludes the FTES that are categorized as off-campus.

Table 2. AY 2019-2020 CSULB Campus Population

Campus Population	AY 2019-2020
On-Campus Full-Time Equivalent Students[1]	28,876
Faculty and Staff [2]	3,823
Total Campus Population	**32,699**

1. Full-Time Equivalent Students (FTES) includes on-site other earned FTES but does not include off-campus FTES
2. Faculty and Staff includes Full-Time Equivalent Employees and Auxiliary Employees

Data Source: Michael Baker International. California State University, Long Beach Master Plan Update – Campus Population Projections Memorandum. October 20, 2022.

3.2. Existing Buildings and Uses

The majority of the university's uses are located on the CSULB main campus, which comprises 84 buildings and eight colleges totaling approximately 5.8 million gross square feet of facilities include academic and administrative facilities, student and campus support facilities, athletic facilities, housing, vehicular and pedestrian circulation, and active and passive open space facilities including approximately 149 acres of landscaping. CSULB also includes the Beachside Village property, a student housing complex with 616 beds.

The campus's greatest water demand is for landscape irrigation, central plant (heating and cooling), domestic water use, dining services, and swimming pools.[5]

4 The Academic Year (AY) is the college year excluding the summer term. CSULB operates on a semester system. Thus, the AY for CSULB is defined as the fall and spring terms.

5 CSULB Campus Master Plan Update.

3.3. Campus Water Supply Sources

The campus's combined domestic and fire water system is solely served by LBWD's water system. Irrigation water for the campus is supplied from two different sources (LBWD's reclaimed water system and LBWD's domestic water system) for different sections of the campus. Reclaimed water supplied by LBWD reclaimed water public lines is used to feed a network covering portions of the northern section of campus, while the domestic water system is used to feed small irrigation branches that serve the remainder of the campus.

3.4. Water Agreements with LBWD

The campus is served by LBWD but does not have a specific water use agreement with LBWD. As a commercial customer of LBWD, no specific water use agreement is required.

3.5. Existing Water System and Water Uses

The combined domestic and fire water system is for CSULB are served by several Long LBWD mains located in the streets that border the campus. The water system at the main campus consists of four separate networks. The majority of the main campus is connected to the main campus loop (Network #1) which consists of several 6-inch and 8-inch sub-loops that connect to various LBWD mains in Atherton Drive, Bellflower Boulevard, State University Drive, 7th Street, and Palo Verde Avenue. The area around Parkside Village is served by an 8-inch loop (Network #2) that connects to the 12-inch LBWD main in Atherton Street. Two individual buildings, Child Development Center (CDC) and Housing & Residential Life (HRL), also have their own meters and services and are separate from Networks 1 and 2.

The Beachside Village property is served by the LBWD's water system through four (4) separate water meters. The potable distribution system includes two (2) tanks and three (3) booster stations. Approximately 10 miles of distribution pipelines (2-inch to 16-inch) deliver water to the various buildings, irrigation, and facilities throughout the campus. The most significant water uses on campus are landscape irrigation, central plant (heating and air conditioning), domestic water use, dining services and swimming pools.[6]

The main campus has three points of connection for the reclaimed water lines to the LBWD public lines in Atherton Street. One of the service connections is located in the northern section of the main campus, near the Walter Pyramid and the Dance Center, the other connection is located in the northeastern section of main campus, to the north of Parking Lot 12; the last connection was recently added in the northwestern portion of

6 CSULB. Water Action Plan. 2017. Available at https://www.csulb.edu/sites/default/files/document/csulb_water_action_plan_2017_final_accessible.pdf.

the campus at Determination Drive. Per meter reading data, the reclaimed water consumption ranges from 190 hundred cubic feet (HCF) (142,235 gallons) per month to 12,274 HCF (9.2 million gallons or MG) per month between July 2007 through April 2022 (see Table 4).

3.6. Fire Flow and Storage

The campus does not have on-site water storage for firefighting. The campus fire water system is combined with the domestic system, and therefore does not depend on on-site storage for fire requirements.

3.7. Water Conservation Measures

In response to climate change and California's declaration of a State of Emergency on water due to severe drought conditions, CSULB established a Water Action Plan in 2014 (updated in 2017) that set the goal of achieving a 20 percent water use reduction by 2020 compared to the 2013 water use baseline.[7] The campus has implemented water conservation projects as part of its overall sustainability goals which include the transition to drought tolerant landscaping, conversion of landscape areas to drip irrigation, use of waterless and low flow urinals, installation of touch free automatic faucets with low flow restrictors, installation weather based central irrigation controllers, and the use of reclaimed water for irrigation.

Additionally, in response to severe and ongoing drought conditions in California, the Long Beach Board of Water Commissioners declared a Stage 2 Water Supply Shortage in May 2022. The LBWD issued the following water use restrictions to which CSULB has taken the necessary steps to comply:

- Water landscape on Tuesdays and Saturdays only
- Water landscape no more than 10 minutes/day if using standard nozzle
- Water landscape no more than 20 minutes/day if using water-efficiency rotating nozzles
- Water only before 9am or after 4pm
- Do not water during or 48 hours after rainfall
- Wash hardscape with pressurized cleaning equipment only
- No operating a foundation or water feature that does not recirculate water
- Cover pools and spas when not in use[8]

Other water conservation efforts by the campus include implementation of:

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7 CSULB. Water Action Plan. 2017. Available at https://www.csulb.edu/sites/default/files/document/csulb_water_action_plan_2017_final_accessible.pdf.

8 CSULB. Drought Response. 2022. Available at: https://www.csulb.edu/sustainability/drought-response.

1. Irrigation Water Savings Program, which was incorporated in the 2022 Climate Action & Adaptation Plan[9], targeted at converting all landscape irrigation spray nozzles to more efficient MP rotators and completing the expansion of the purple pipe network of reclaimed water across the entire campus.
2. Landscape Master Plan,[10] which includes turf reduction, plant palette transition, and stormwater treatment, and is intended to reduce potable water consumption.
3. Strategic Energy Plan,[11] which includes the reduction of chilled water and hot water usage.
4. Systemwide policies such as CSU Executive Order 0987 (Policy Statement on Energy Conservation, Sustainable Building Practices, and Physical Plant Management for the California State University), 2022 CSU Sustainability Policy related to water conservation, and CSULB drought response to the Long Beach Board of Water Commissioners declaration on water supply shortage.

3.8. Existing Water Consumption/Demands

The campus's water consumption data, which includes the Beachside Village property, dated from July 2007 to April 2022 and based on meter readings and LBWD's billing data, are presented in **Tables 3 and 4**.[12] **Figure 1** illustrates the campus's annual domestic water and reclaimed water consumption trends.

Between July 2007 and April 2022, the average campus domestic water demand was approximately 186,745 HCF (139.7 MG) per year, and the average reclaimed water demand was approximately 76,177 HCF (56.9 MG) per year.

The annual domestic water consumption shows a trend of slight reduction with an average reduction rate of 1.3 percent per year from 2007 to 2021. However, due to the impact of the COVID-19 pandemic during 2020 and 2021, this reduction does not accurately reflect historical trends. Compared to data through 2019, the reduction rate is estimated to be approximately 0.6 percent. Reclaimed water usage is relatively constant throughout this period with an average 56.9 MG used per year.

9 CSULB. Climate Action & Adaptation Plan. 2022. Available at https://www.csulb.edu/sites/default/files/document/csulb_climate_action_adaptation_plan_2022_final.pdf.

10 CSULB. Landscape Master Plan. September 2012. Available at https://www.csulb.edu/sites/default/files/document/landscape_master_plan_swa_group.pdf.

11 CSULB. Strategic Energy Plan. July 2011. Available at https://www.csulb.edu/sites/default/files/atdocument/csulb_strategic_energy_plan.pdf.

12 April 2022 represents the baseline conditions as they exist at the time of the release of the Notice of Preparation.

Table 3. Campus Historical Domestic Water Consumption

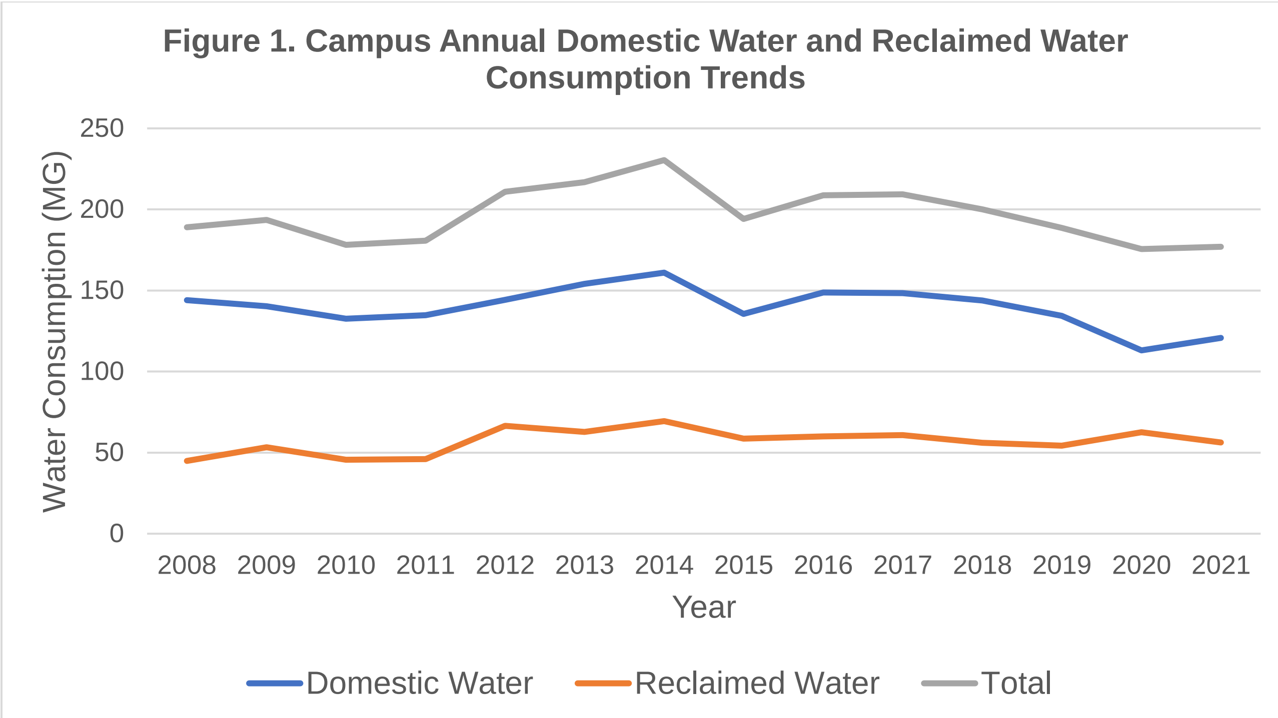
Domestic Water Usage (Hundred Cubic Feet - HCF)													
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
2007	N/A	N/A	N/A	N/A	N/A	N/A	16,553	16,069	19,457	19,880	15,994	8,976	N/A
2008	6,968	13,342	15,599	20,646	17,075	15,462	16,553	11,618	23,196	20,271	15,949	15,910	192,589
2009	10,322	14,592	14,970	20,211	16,498	16,183	16,024	12,152	23,649	13,156	14,848	14,848	187,453
2010	9,786	12,165	11,836	18,007	17,211	14,287	17,065	14,720	21,512	15,828	15,064	9,836	177,317
2011	10,693	15,454	11,836	18,007	17,211	14,287	15,498	15,516	20,956	16,701	14,382	9,720	180,261
2012	11,064	16,032	13,574	15,845	16,354	14,051	15,259	19,338	24,735	20,157	17,969	8,412	192,790
2013	11,935	16,435	15,564	20,354	16,319	16,618	16,587	16,971	15,800	19,295	19,980	20,023	205,881
2014	18,337	10,800	15,893	16,984	17,028	20,439	17,803	18,364	17,617	20,570	22,072	19,328	215,235
2015	7,212	14,929	18,286	16,032	17,014	12,082	8,708	19,054	20,304	20,265	16,794	10,513	181,192
2016	12,216	14,803	16,127	17,783	17,161	16,062	18,528	20,622	21,145	20,097	14,881	9,360	198,785
2017	8,833	11,771	15,860	18,237	17,550	16,250	18,151	19,494	20,600	21,049	17,349	13,248	198,392
2018	13,439	13,389	14,312	16,095	16,037	14,536	17,628	20,687	21,191	19,800	15,051	10,116	192,281
2019	9,966	11,187	14,641	17,670	16,741	13,421	14,583	16,949	19,091	19,029	15,678	10,665	179,621
2020	11,904	14,419	11,229	8,287	15,171	14,495	13,114	13,610	13,013	13,244	11,850	10,813	151,150
2021	10,662	9,765	10,726	11,337	12,825	13,095	14,379	16,686	17,594	17,834	15,246	11,337	161,487
2022	4,560	8,246	16,061	15,100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	**10,526**	**13,155**	**14,434**	**16,706**	**16,443**	**15,091**	**15,762**	**16,790**	**19,991**	**18,478**	**16,207**	**12,207**	**186,745**

Data Source: CSULB Water Meter Readings from 2007 to 2022.

Table 4. Campus Historical Reclaimed Water Consumption

Reclaimed Water Usage (Hundred Cubic Feet - HCF)													
Year	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total**
2007	N/A	N/A	N/A	N/A	N/A	N/A	8,198	7,889	9,060	4,535	5,737	2,242	N/A
2008	784	1,332	1,483	4,063	5,486	5,380	8,198	9,426	7,153	7,434	7,150	2,112	60,001
2009	2,385	1,957	1,673	6,412	6,592	6,540	10,931	7,972	12,045	4,306	5,275	5,275	71,363
2010	4,260	273	1,445	3,614	6,435	7,549	11,234	7,195	9,492	4,339	2,902	2,140	60,878
2011	190	3,387	1,445	3,614	6,435	7,549	7,984	8,234	10,326	5,059	4,477	2,711	61,412
2012	4,749	2,789	7,738	6,555	5,559	8,873	8,349	11,901	9,854	7,775	11,170	3,708	89,020
2013	3,335	2,934	3,764	6,592	9,353	9,891	8,743	10,898	9,755	8,635	7,370	2,619	83,889
2014	5,742	3,941	2,727	7,482	12,262	10,129	10,877	12,274	9,845	9,233	5,381	2,905	92,798
2015	3,634	3,902	3,691	7,953	6,464	6,520	9,954	10,213	8,618	6,773	6,101	4,528	78,350
2016	3,148	2,991	4,013	5,916	8,743	10,049	11,471	10,580	9,081	7,503	4,274	2,545	80,315
2017	1,132	1,132	4,845	7,817	9,061	8,951	9,933	9,785	8,892	7,825	6,492	5,444	81,308
2018	4,369	3,578	3,718	5,998	8,519	9,571	10,751	8,510	7,181	6,151	4,483	2,191	75,019
2019	756	488	2,224	5,385	6,512	7,396	10,743	11,359	9,846	8,772	6,216	2,917	72,612
2020	3,534	4,246	3,882	4,451	8,783	9,765	10,344	10,172	9,404	7,896	5,970	5,099	83,545
2021	3,903	3,316	5,254	6,340	7,784	8,470	9,511	9,505	8,106	6,273	3,624	3,047	75,134
2022	2,677	4,008	4,999	3,257	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Average	**2,973**	**2,685**	**3,527**	**5,697**	**7,713**	**8,331**	**9,815**	**9,727**	**9,244**	**6,834**	**5,775**	**3,299**	**76,117**

Data Source: CSULB Water Meter Readings from 2007 to 2022.

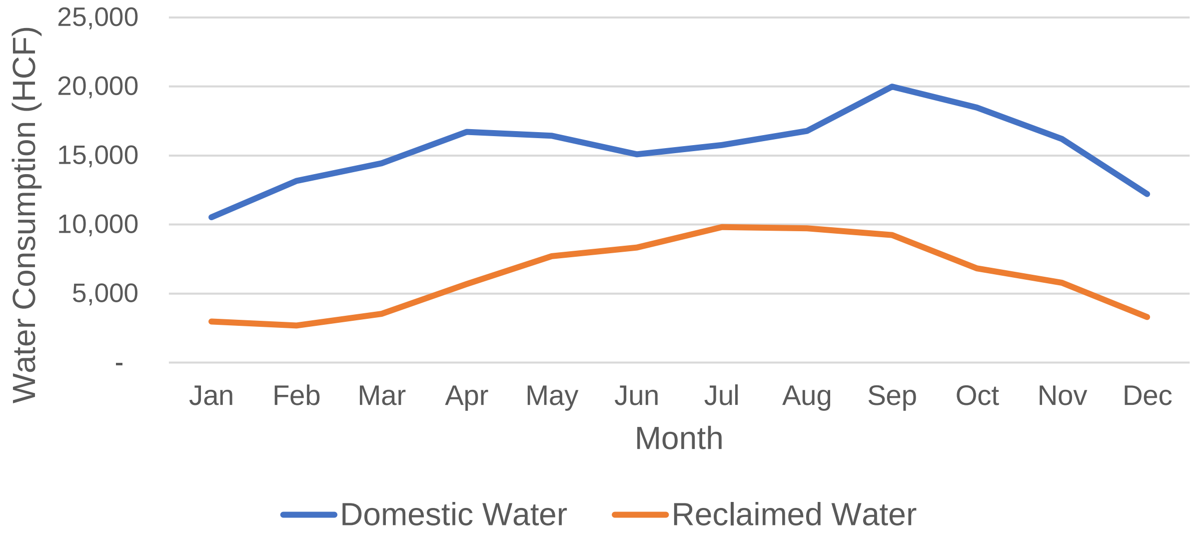


Data Source: CSULB Water Meter Readings from 2007 to 2022

3.9. Existing Seasonal Water Demands

Figure 2 shows the seasonal fluctuations of the campus's domestic water and reclaimed water usages. Figure 2 indicates that the domestic water consumption has a significant seasonal trend, where the lowest demands typically occur in December/January while the campus population are not on-campus during the campus's winter holiday closure. The peak demands typically occur in September which is the busiest season of the university because it coincides with the start of the academic year. The reclaimed water usage is not impacted by the campus occupancy as it is primarily used for irrigation. As such, the peak reclaimed water season is in the summer due to the high heat, which results in drier soils and plants requiring more water.

Figure 2. Seasonal Fluctuations of Campus Domesitc Water and Reclaimed Water Consumptions



Data Source: CSULB Water Meter Readings from 2007 to 2022

3.10. Unit Water Consumption Rate Per Capita

The Unit Water Consumption Rate is defined as the water consumption rate per capita per day or per academic year. For the purposes of this report, each academic year is defined as from the month of May to the month of April of the next year, based on the available data provided from the CSULB water meter readings.

The baseline Unit Water Consumption Rate for this analysis is AY 2019-2020. Based on the domestic water consumption data in Table 3, the campus domestic water usage from May 2019 to April 2020 was 128.7 MG. However, this number is atypical and significantly lower than the historical rate for other years as it coincided with the beginning of the COVID-19 pandemic (March 2020). In order to avoid underestimating the unit water consumption rate, the campus domestic water usage from March 2019 to February 2020, which is 138.2 MG, was used for the unit water consumption rate calculation.

As previously discussed, the total campus population for AY 2019-2020 is 32,699. Therefore, the unit water consumption rate is 11.58 gallons per capita per day (GPCD), or 4,277 gallons per capita per academic year (i.e., unit water consumption rate = 138.2 MG per academic year/32,699 persons).

For comparison, the current per capita water demand for LBWD is 109 GPCD.[13]

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[13] Long Beach Water Department. Water Resources Plan. December 2019. Available at: https://lbwater.org/wp-content/uploads/2020/04/LBWD-WRP-1.pdf.

4. PROJECTED WATER DEMANDS

4.1. Projected Student Enrollment and Campus Population

The Campus Master Plan Update makes reasonable assumptions about projected student enrollment through the 2035 horizon year and assumes annual compounded growth of one percent approximately throughout the life of the Master Plan Update, reflecting typical annual growth per the CSU's Office of the Chancellor. With the application of the annual compounded one percent growth rate to the 2019-2020 AY FTES, it is anticipated that there would be 33,334 FTES enrolled in AY 2034-2035.

As discussed in the Campus Population Projections Memorandum appended to the EIR, the COVID-19 pandemic (beginning March 2020) has led to increases in telework and remote/online learning. For the purposes of a more conservative analysis, it is assumed that the same proportion of off-campus FTES from the baseline year (AY 2019-2020) would be applied through the horizon year (AY 2034-2035). This report does not include an analysis of off-campus FTES water demand.

The total campus population comprises on-campus students, faculty, staff, and faculty/staff household members, which is anticipated to be 38,165 for the horizon year (AY 2034-2035).

In accordance with Senate Bill 610, to meet the 20-year projection (by 2040) requirements for WSAs, this report assumes the same population growth rate used between 2020 and 2035 for the five years after the horizon year (AY 2034-2035). The AY 2039-2040 population projections are only applicable for the purposes of this report. As such, the total on-campus population for AY 2039--2040 is projected to be 40,181. **Table 5**, Existing and Anticipated Total Campus Population, depicts the breakdown of total on-campus FTES and faculty and staff under baseline year conditions, at the Master Plan Update 2035 horizon year, and at the extended projection 2040 horizon year (total population only for 2040).

Table 5. Existing and Anticipated Total Campus Population

	AY 2019-2020	AY 2034 -2035	AY 2039 -2040
Total Campus Population	32,171	38,165	40,181

4.2. Proposed Buildings and Uses

The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs. The primary strategies for implementing the updated master plan include renovation of existing buildings (renovation), demolition and replacement of existing buildings in the same physical location (replacement), construction of some new buildings (new construction), and leaving buildings in their existing location and configuration (building to remain to remain). The Master Plan Update also identifies improvements to landscape and open space as well as sustainability and resiliency.

Projects implemented under the Master Plan Update that would generate new water demand include building additions (expanding the footprint of an existing facility) and new buildings (construction of a new facility). Replacement projects would generally not result in increased or additional water demand as they would involve demolition and replacement of an existing facility in the same physical location, resulting in the same or similar water demand. Additionally, replacement projects would implement water conservation measures such as low water use fixtures (faucets, toilets and urinals) when retrofitting restrooms and drought tolerant landscaping. Projects that include interior and exterior renovation would also generally not result in increased or additional water demand.

The Master Plan Update also includes the replacement of the existing Parkside Housing Village, renovation of Hillside College and Beachside Housing, and new Faculty and Staff Housing. However, this may not necessarily lead to a significant change in total water demand on the campus. This is because water usage is primarily determined by individual behavior and habits, rather than the specific buildings or housing units in which people reside.

Although a business building footprint is typically used for water demand estimation in the commercial area, this assumption is not fully applicable to the campus as campus buildings have various purposes of research, teaching, civil and residence uses. There are too many uncertainties to base the project on the building footage in this case. Therefore, for the best projection results, campus population is used for water demand projection in this report.

4.3. Projected Water Supply Source and Water System

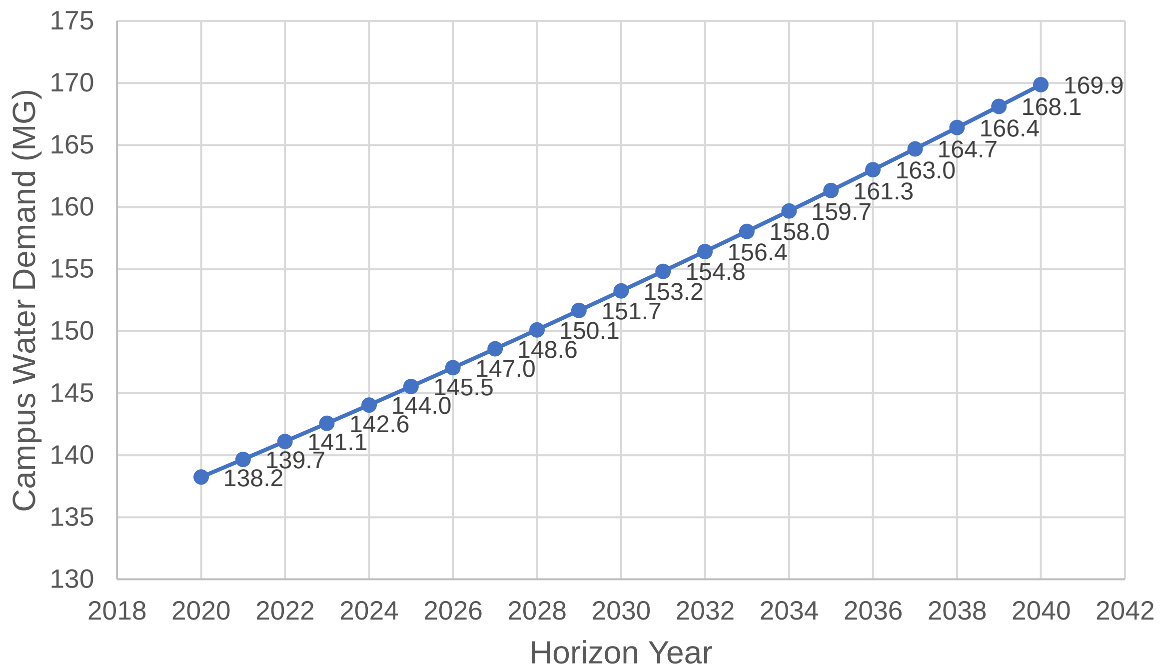
It is anticipated that LBWD will continue being the sole water supplier for the campus in the future. The campus has developed a Utility Master Plan which evaluates the existing utilities currently serving the CSULB campus and provides recommendations to alter, upgrade, or modify the existing utility infrastructure to support the facilities proposed as part of the Master Plan Update. The plan also identifies critical needs for each of the utilities that need to be addressed to minimize interruptions and promote reliability and redundancy. The water system improvements within the campus would have no direct impact on the water consumption, water supply, or LBWD’s network.

4.4. Projected Average Annual Water Demands

Section 3.10 of this report identified the unit water consumption rate as 11.58 gallons per capita per day, or 4,227 gallons per capita per year. It is anticipated the domestic water demand would increase to 169.9 MG by Horizon Year 2040 (AY 2039-2040), calculated by the total campus population 40,181 (i.e., 4,227 gallons per capita per year x 40,181 persons = 169.9 MG). The annual increase rate is about 1.04 percent.

Note based on this projection, the AY 2020-2021 (May 2020-April 2021) water demand was projected to be 139.6 MG, but the actual metered water demand was only 110.6 MG. Additionally, the AY 2021-2022 (May 2021-April 2022) water demand is projected to be 141.0 MG, but the actual metered water demand was only 121.9 MG. The discrepancies between the AY 2021-2021 and AY 2021-2022 metered water demands were due to the COVID-19 pandemic, and thus, the numbers are not reliable for calibration of the projections. The projected average annual water demand for 2020-2040 are presented in **Figure 4**.

Figure 4. Projected Campus Domestic Water Demand



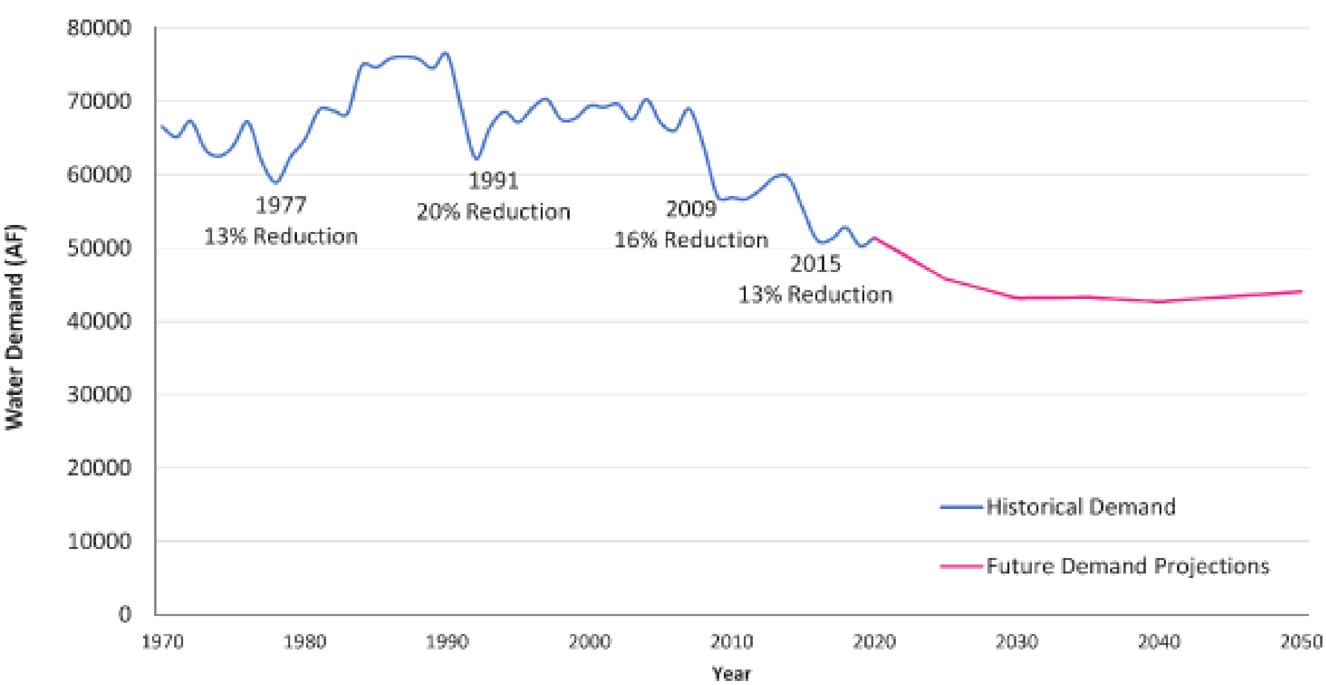
5. LBWD'S EXISTING AND PROJECTED WATER SUPPLIES

As the sole water source for the campus, LBWD's water supply reliability is critical to the campus's water supply. The following data are primarily from LBWD's 2020 UWMP.

5.1. Existing and Projected Total Water Demands and Supplies Based on LBWD's UWMP

LBWD's total water demands were projected using LBWD population and per capita water use. The total LBWD population is currently estimated to be nearly 497,000 and is projected to grow by nearly 65,000 over the next 30 years, or approximately 13 percent. Per LBWD's UWMP, the historical and projected water use of LBWD is shown in **Figure 5**. Per capita water use in Long Beach has been on a general decline since the 1980s. Total water demand is projected to decline through 2030 as water efficiency continues to increase, then projected to continue to hold steady through 2040 as increasing water demand from population and economic growth are balanced out by reductions from conservation. LBWD's total water supply, including recycled water supply, is projected to increase from 62,089 AF (20,232 MG) in 2020 to 88,752 AF (28,920 MG) MG by 2035, and hold steady through 2050. By 2040, water demand is projected to be 42,721 acre-feet (AF), or 11,963 MG annually. The water demand is projected to begin increasing to approximately 44,072 AF or 12,341 MG by 2050 as population and economic growth surpasses the reductions in demand from conservation.

Figure 5. LBWD Historical and Projected Water Use



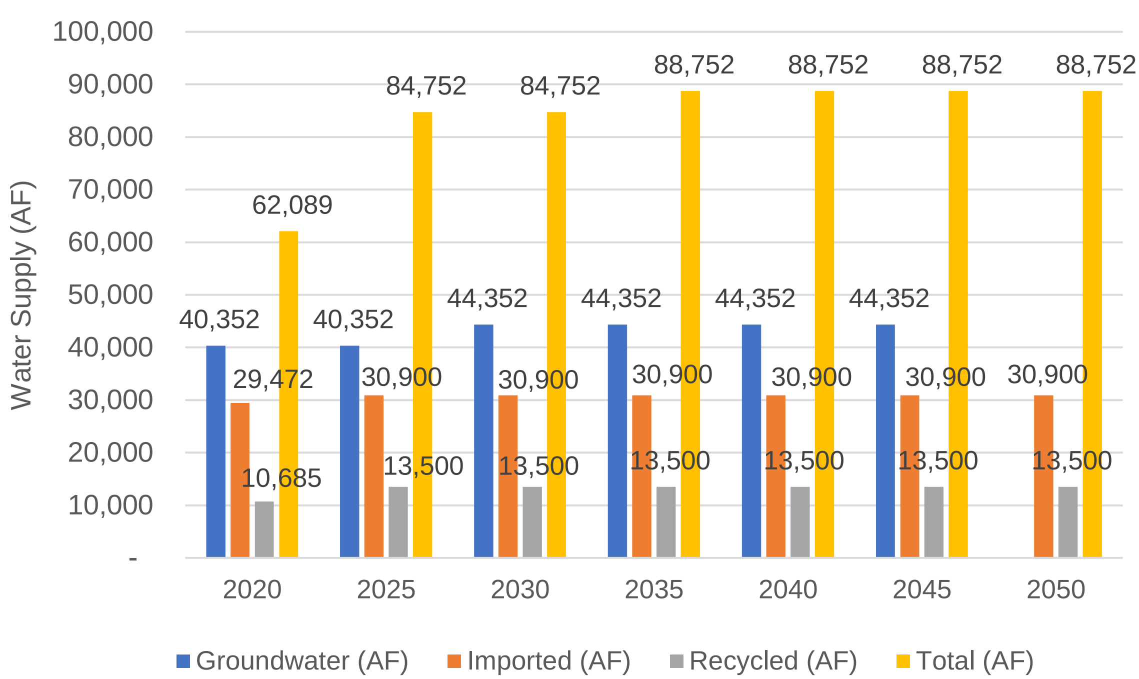
Data Source: LBWD 2020 UWMP Page 24

The LBWD's water resources include:

1. Groundwater: LBWD has the rights to pump 32,692 AF of groundwater per year from the Central Basin Aquifer.
2. Imported Water: LBWD purchases imported water as one of the 26 member agencies of the Metropolitan Water District of Southern California. The Metropolitan Water District of Southern California imports water to Southern California from two primary water sources: the Colorado River and runoff from the western slopes of the northern Sierra Nevada Mountains.
3. Recycled Water: LBWD recycled water comes from the Long Beach Water Reclamation Plant.

From 2020 to 2040, the average annual rate increases 1.8 percent. Excluding recycled water, the domestic water supply is projected to increase from 51,404 AF (16,750 MG) in 2020 to 75,252 AF (24,521 MG) by 2035 and hold steady through 2050.[14] From 2020 to 2040, the average annual rate of increase is 1.9 percent. LBWD's existing and projected water supply is presented in **Figure 6**.

Figure 6. LBWD's Exisitng and Projected Water Supplies



Data Source: Reproduced from LBWD 2020 UWMP Page 59

[14] Long Beach Water Department. 2015 UWMP. Page 59. Available at: https://lbwater.org/wp-content/uploads/2019/09/LBWD-2015-UWMP-FINAL-Board-Adopted-3.pdf.

5.2. Existing and Projected Commercial Water Demands Based on LBWD's UWMP

LBWD's UWMP provides the projected water demands by section. CSULB was categorized as a commercial use. The commercial category includes almost every type of non-residential customer other than irrigation accounts and a small number of industrial customers. For example, it includes office buildings, restaurants, retail outlets, and government/institutional entities such as the Long Beach Unified School District, California National Guard, and Long Beach Parks, Recreation and Marine. LBWD has almost 6,400 active commercial accounts. The commercial and institutional water use accounted for about 27% of total water usage for LBWD. Demand for water in the commercial sector is largely driven by the economy.

LBWD projected that the commercial water demand will decrease from 11,084 AF (3,104 MG) in 2020 to 9,283 AF (2,599 MG) by 2040.[15] See **Table 6**, LBWD Water Demand by Sector.

Table 6. LBWD Water Demand by Sector

Demand Sector	Water Demand (AF)			
	2020	2030	2040	2050
Single Family	18,136	16,307	15,916	16,082
Multi-Family	14,160	12,987	13,281	13,894
Irrigation	1,820	1,893	1,975	2,049
Commercial	11,084	9,718	9,283	9,735
Industrial	594	574	556	549
Total Billed	45,794	41,483	41,012	42,309
Water Loss	4%	4%	4%	4%
Total Demand with Losses	47,702	43,211	42,721	44,072

Data Source: Long Beach Water Department. 2020 UWMP. Page 31.

In Calendar Year 2020, CSULB's water demand was 120.8 MG, which is 3.9 percent of LBWD's total commercial water demand (i.e., water demand = 120.8 MG /3,104 MG). In 2040, CSULB's water demand is projected to be 169.9 MG, which is 6.5 percent of LBWD's total commercial water demand (i.e., water demand = 169.9 MG/2,599 MG).

5.3. LBWD's Water Surplus

Historically, LBWD water supplies have proven to be reliable during normal years and even during the driest single year and multiple consecutive dry-year hydrologic conditions (see **Table 7**). LBWD water supplies are projected to continue to be reliable during a single dry-year or multiple dry-years through 2050. Historical precipitation data was referenced to determine which years to use for the purposes of evaluating LBWD supply reliability during a single dry year and multiple dry years. The single driest year (July through June) in Long Beach in the past 50 years was 2007, which only had 2.1

15 LBWD. UWMP. 2020. Page 24.

inches of precipitation the entire year. The driest four-year period in the past 50 years was from 2012 through 2016, averaging just 6.7 inches of precipitation annually.[16]

Table 7. LBWD Water Supplies Exceed Demands in All Hydrological Conditions

Year	2025	2030	2035	2040	2045	2050
Normal Year Hydrology						
Total Supply (AF)	84,752	84,752	88,752	88,752	88,752	88,752
Total Demands (AF)	53,964	53,964	51,861	51,691	51,653	52,570
Surplus (AF)	30,788	30,788	36,891	37,061	37,099	36,182
Surplus (%)	57%	57%	71%	72%	72%	69%
Single Dry Year Hydrology						
Total Supply (AF)	84,752	84,752	88,752	88,752	88,752	88,752
Total Demands (AF)	53,964	53,964	51,861	51,691	51,653	52,570
Surplus (AF)	30,788	30,788	36,891	37,061	37,099	36,182
Surplus (%)	57%	57%	71%	72%	72%	69%
Multiple Dry Year Hydrology						
Total Supply (AF)	84,752	84,752	88,752	88,752	88,752	88,752
Total Demands (AF)	53,964	53,964	51,861	51,691	51,653	52,570
Surplus (AF)	30,788	30,788	36,891	37,061	37,099	36,182
Surplus (%)	57%	57%	71%	72%	72%	69%

Data Source: Long Beach Water Department. 2020 UWMP. Page 67

Table 7 indicates that even under the worst scenario (i.e., multiple dry years), LBWD would still have a water surplus of more than 57 percent of the water demand and the surplus is projected to increase to 37,061 AF per year, or 72 percent of the water demand, by 2040.

[16] LBWD. UWMP. 2020. Page 63.

6. CAMPUS WATER SUPPLY EVALUATION

6.1. Assumptions

This report is based on the following assumptions:

1. LBWD is the only source of water supply to CSULB. Any assessment conclusion is based on the accuracy of LBWD's water supply projection.
2. As the starting point and baseline, the campus has not experienced a water supply shortage issue under the existing (2020) scenario.
3. All water demand projections are based on campus population projections.

6.2. Analysis Approach and Conclusions

From 2020 to 2040, CSULB's water demand is expected to continue to increase by 31.7 MG (from 138.2 MG to 169.9 MG), while LBWD's projected total commercial water demand will decrease from 11,084 AF (3,104 MG) in 2020 to 9,283 AF (2,599 MG) by 2040. As the result, CSULB's water demand percentage of the LBWD's total commercial water demand will change from 3.9 percent in 2020 to 6.5 percent in 2040.

However, as discussed in Section 5.1, LBWD's water supplies are projected to have average annual increases of 1.8 percent through 2040, which is higher than the CSULB's water demand increase rate of 1.04 percent. By 2040, LBWD will have 12,076 MG (37,061 AF) of water surplus per year, which is adequate to cover the CSULB's water demand increase 31.7 MG.

Therefore, implementation of the Master Plan Update would not result in inadequate water supply by 2040.[17]

[17] D. Wang and H. Baquerizo (LBWD), Personal Communication, March 8, 2023.

7. RECOMMENDATIONS

Based on LBWD's total water supply and projected total water demand through 2040, it is not anticipated that implementation of the Master Plan Update would result in a water supply issue through 2040. However, to ensure minimal risk to water supply and support ongoing water reduction policies, it is recommended that CSULB continue efforts to reduce water consumption. Such efforts have been presented in Campus's Water Action Plan, 2020 Climate Action & Adaptation Plan, 2012 Landscape Master Plan, 2011 Strategic Energy Plan, campus-wide policies: Executive Order 0987 and 2020-updated CSU Sustainability Policy, including but not limited to:

1. Identifying opportunities to use reclaimed/recycled water in place of potable water.

   Per the Water Usage and Conservation Study completed by P2S Engineering in 2015, during 2012 and 2014, the campus used average 100 MG of water per year for irrigation demands, including 56.9 MG of reclaimed (recycled) water (as indicated in Section 3.9). That means the campus still has the potential to save up to 43 MG of domestic water if all irrigation needs are completely covered by reclaimed water.

2. Implementing applicable best management water use practices for all campus operations.
3. Encouraging campus wide water conservation.
4. Implementing the Irrigation Water Savings Program and installing controls to optimize irrigation water efficiency.
5. Reducing turf area, and replacing it with native landscaping
6. Improving stormwater capture and reuse
7. Reducing water usage in restrooms, showers, fountains, and decorative water features.

APPENDIX J

Will Serve Letter

Will Serve Letter Request Form

Requestor Name	Melissa Soto
Title	Manager of Capital Program Development
Company Name	California State University, Long Beach
Street Address City/State/Zip	1250 Bellflower Blvd. | Long Beach, CA 90840-5805
Phone	562-985-5127
Email Address	melissa.soto@csulb.edu

Project Title (e.g., Tract #, Parcel #, CUP #, Case #, Name, or Street Address with cross-street)

California State University, Long Beach Master Plan Update

Project Location (e.g., N-S-W-E side of street or NW-NE-SW-SE corner of streets intersection)

CSULB Campus: 322 acres and is generally bounded by East Atherton Street on the north, East 7th Street on the south, Palo Verde Avenue on the east, and Bellflower Boulevard on the west in the City of Long Beach, CA
Beachside Village: 4845 E Pacific Coast Hwy, Long Beach, CA 90804

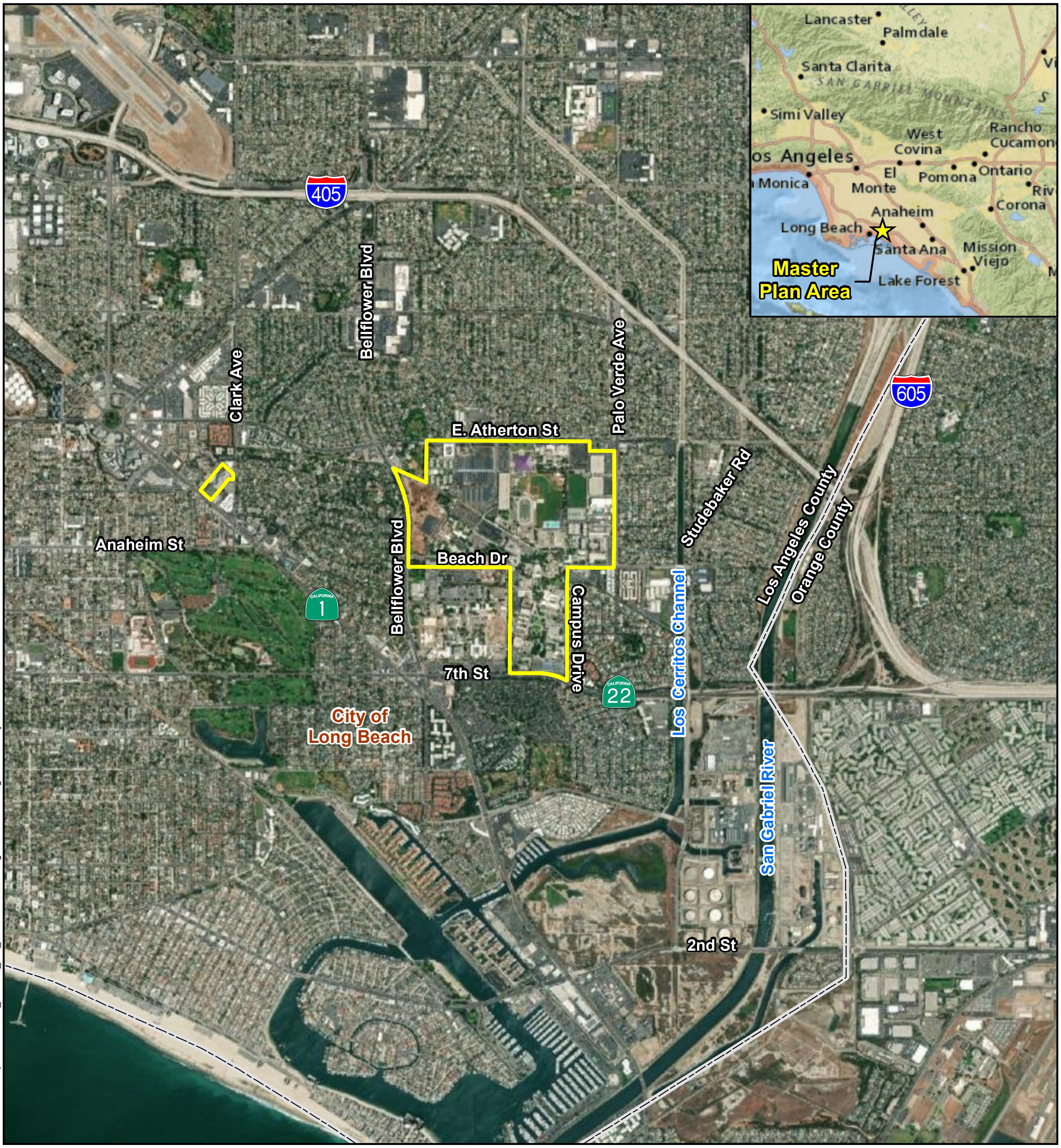
Assessor's Parcel Number(s)	7239-020-900, 7239-020-901, 7239-021-902, 7220-004-028

Project Description
(e.g., proposed # single family homes/condos/apartments and/or each proposed building use and sq.ft.)

CSULB is proposing a comprehensive update of the current campus Master Plan, last updated in 2008, to accommodate enrollment growth, a campus population, and physical development of the campus through the horizon year 2035. The Master Plan Update focuses on optimizing the existing physical assets of the campus, enhancing the efficiency of facilities throughout the campus, and evolving the existing buildings and programs to accommodate future campus needs. The project includes specific development components identified in the Master Plan Update that are expected to be developed in the near-term (2-5 years), mid-term (6-10 years), and long-term (11 years or more). In horizon year 2035, the total on-campus population is anticipated to be 38,165, which includes full time equivalent students and employees, auxiliary employees, and faculty/staff household members (a net increase of 5,466 from the 2019-2020 academic year).

Vicinity Map or Site Plan	Attached ■

Please complete and email this form, including attachments, to the Will Serve Desk at willserve@lacsd.org.



3/26/2022 JN H:\pdata\187650_CSULB_MP_EIR\6-GIS\MXD\Fig 01- CSULB Regional Vicinity.mxd

Legend

Campus Master Plan Boundary

County Boundary

Michael Baker INTERNATIONAL

0 1,500 3,000 Feet

Source: County of Los Angeles, Nearmap, ArcGIS Online

CALIFORNIA STATE UNIVERSITY, LONG BEACH CAMPUS MASTER PLAN UPDATE
ENVIRONMENTAL IMPACT REPORT

Regional Location Map

Figure 2-1

LOS ANGELES COUNTY
SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

May 10, 2023

Ref. DOC 6899679

Ms. Melissa Soto, Program Planner
California State University, Long Beach
Office of Design + Construction Services
1331 Palo Verde Avenue
Long Beach, CA 90815

Dear Ms. Soto:

Will Server Letter for California State University Long Beach Master Plan Update

The Los Angeles County Sanitation Districts (Districts) received your will serve letter request for the subject project in the City of Long Beach on April 18, 2023. The proposed project is located within the jurisdictional boundaries of Districts Nos. 3 and 19. We offer the following comments regarding sewerage service:

1. The Districts maintain sewerage facilities within the project area that may be affected by the proposed project. Approval to construct improvements within a Districts' sewer easement and/or over or near a Districts' sewer is required before construction may begin. For a copy of the Districts' buildover procedures and requirements go to www.lacsd.org, under Services, then Wastewater Program and Permits and select Buildover Procedures. For more specific information regarding the buildover procedure, please contact Mr. Ryan Honda at (562) 908-4288, extension 2766.

2. Due to the anticipated volume of wastewater to be generated by the proposed project and from other planned developments in the area, the proposed project may have significant impacts on the Districts' sewerage system. Although there is no relief sewer scheduled for construction at this time, as additional flows are generated and the Districts' trunk sewer nears capacity, construction of a relief sewer will be scheduled, depending on the availability of relief project funding. Therefore, the availability of capacity within the Districts' sewerage system should be verified as the proposed project develops.

3. The wastewater flow originating from the proposed project will discharge to local sewer lines, which are not maintained by the Districts, for conveyance to the one or more of the following Districts' trunk sewers:

Name	Location	Size (dia.)*	Capacity (mgd)**	Peak Flow (mgd)	Last Measured
Joint Outfall "C "Unit 3D	15th St. at Pacific Coast Highway	51	32.2	9.7	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Connection Sewer	Private right-of-way north of Deukmejian Way and east of the tennis courts on campus	24	4.7	1.9	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Connection Sewer	E. State University Dr. at E. Campus Rd.	8	0.8	0.1	2020
Joint Outfall "A" Unit 1A Long Beach WRP Interceptor Section 1 Gravity Sewer	E. Atherton St. between E. Abbeyfield St. and E. Daggett St.	37.1	14.8	11.6	2020
Joint Outfall "C " Unit 5A Replacement Trunk Sewer	E. State University Dr. at W. Campus Rd.	12	3.1	0.06	2020

*diameter in inches
**million gallons per day

4. The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 mgd and currently processes an average flow of 249.8 mgd, or the Long Beach Water Reclamation Plant, which has a capacity of 25 mgd and currently processes an average flow of 15.2 mgd.

5. The expected increase in average wastewater flow from the project, described in the application as a 5,466 increase in students and employees, is 109,320 gallons per day. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits and select Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link.

6. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is used by the Districts for its capital facilities. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family Home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, the applicant should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the applicant that the Districts intend to provide this service up to the levels that are legally permitted and to inform the applicant of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2708, or dcurry@lacsd.org.

Very truly yours,

Donna J. Curry

Donna J. Curry
Customer Service Specialist
Facilities Planning Department

DC:dc

cc: A. Schmidt
A. Howard
R. Honda

APPENDIX K

Screening Analysis for Caltrans Facilities

Memorandum

Date: July 15, 2022

To: Fareeha Kibriya and Christina Lowery, Michael Baker International, Inc.

From: Netai Basu, Michael Kennedy and Marta Polovin

Subject: Screening Analysis of Caltrans Facilities for CSU Long Beach Master Plan EIR

LB22-0058

Introduction

This memorandum presents findings from a preliminary screening analysis conducted on select Caltrans facilities located near CSU Long Beach (CSULB). This analysis was conducted following receipt of a comment letter from Caltrans on the Notice of Preparation for an environmental impact report (EIR) for the proposed CSULB Master Plan Update.

The comment letter recommended that the EIR include analysis of the three freeway on-ramps and off-ramps and one conventional highway segment listed below.

1. Interstate 405 (I-405) Northbound (NB) and Southbound (SB) at Bellflower Boulevard
2. I-405 NB and SB at Palo Verde Avenue (interpreted to include the SB on-ramps from Woodruff Avenue and Stearns Avenue)
3. I-405 NB and SB at Studebaker Road
4. State Route 22 (SR-22) and West Campus Drive intersection to SR-22 and East Campus Drive/Margo Avenue Intersection

Caltrans' Traffic Safety Bulletin 20-02-R1 ("Interim Local Development Intergovernmental Review (LDIGR) Safety Review Practitioners Guidance" dated December 18, 2020) provides guidance for "conducting safety reviews for land use projects and plans affecting the State Highway System" and establishes the safety review expectations for CEQA compliance. **Appendix A** to this document describes a two-pronged test for freeway queuing analysis:

- "If the Project adds two or more car lengths to the ramp queue in the peak hour that will extend into the freeway mainline, then the location must be reviewed for traffic safety impacts which include a review for speed differential between the off-ramp queue and the mainline of the freeway during the same peak hour." and

- "If the speed differential between the mainline lane speeds and the ramp traffic is below 30 mph, the project would be considered to cause a less-than-significant safety impact and no traffic safety impact mitigation shall be requested."

The LDIGR guidance describes analysis techniques for freeway off-ramps but not for freeway on-ramps. The on-ramps named in the comment letter, as is typical of on-ramps in the project area, are metered to control the rate at which vehicles enter the freeway mainline and so, by design, may have speed differentials that exceed 30 mph. Nevertheless, this screening analysis applies the same methodology to all locations where analysis was recommended, including off-ramps, on-ramps and the conventional highway segment.

Methodology

Upon initiating this analysis, Fehr & Peers reviewed the Caltrans Performance Measurement System (PeMS) database to determine whether an analysis could be performed using that data source, as recommended in the LDIGR guidance. We found that in-roadway PeMS detectors were not present at all of the necessary locations. Per the LDIGR guidance, since reliable PeMS data is not available for these locations, another source of speed data was used to estimate speed differentials.

Wejo is a Big Data company that collects, stores and analyzes GPS data from connected vehicles, which is derived from two different data streams: one that that reports specific driving events and another that provides periodic location updates. Wejo data relies upon one automobile manufacturer and all data used to calculate average speed required at least ten observances during the analysis time periods for greater accuracy. Data collected in October 2019 (pre-COVID conditions) was used in this analysis. Collected data is assigned on a segment-by-segment basis using the OpenStreetMap (OSM) Network and include average speeds by selected time period. Total range of observances per segment ranged from approximately 50 to 14,800 trips. (**Figures 1-4** show the analyzed segments.)

For this analysis, Fehr & Peers analyzed Wejo average speed data for OSM segments that comprise the study locations, identifying mainline and ramp segments using Geographic Information Systems (GIS). We calculated the weighted average speeds of the mainline segments and on- and off-ramp segments individually to determine if there were any observed speed differentials greater than 30 mph for the AM peak period (6 to 9 AM) and PM peak period (4 to 7 PM) between mainline and ramp segments.

Findings

During the AM peak period, speed differentials between each of the analyzed off-ramp locations ranged from 0 mph to 36 mph. During the PM peak period, speed differentials ranged from 3 mph to 24 mph.

Only one speed differential at any analyzed location exceeded 30 mph. During the AM peak period, a difference of 36 mph was found at the I-405 SB on-ramp at Palo Verde Avenue/Woodruff Avenue (see **Table 1** and **Figure 2b**). As shown in Figure 2b, two different speeds were observed on this on-ramp, with the lowest (15 mph) being found behind the ramp meter and the highest speed (56 mph) observed where the ramp traffic enters the freeway mainline. Thus, this more detailed examination of the data shows that the speed differential at the gore point where on-ramp ends is well under 30 mph.

At this same location, the speed differential was found to be 18 mph in the PM peak period. This on-ramp location is approximately 0.32 miles north of the aerial intersection of I-405 and Palo Verde Avenue. There is no southbound on-ramp available directly from Palo Verde. Fehr & Peers also analyzed the nearby on-ramp location at I-405 at Stearns Avenue, approximately 0.26 miles south of the aerial intersection of I-405 & Palo Verde Avenue and found that the speed differential was 26 mph or less in the peak periods (see **Table 1** and **Figure 2c**).

The highest speed differential observed between an off-ramp and mainline location was 29 mph at the I-405 SB off-ramp at Studebaker Road during the AM peak period (see **Figure 3**). At this same location, the speed differential lowers to 12 mph for the PM peak period. As shown in Figure 3, three different speeds were observed on this off-ramp, with the lowest (10 mph) being found at the signalized ramp terminus, a moderate speed of 33 mph and the highest speed (53 mph) at the gore point where the off-ramp diverges from the freeway mainline. This shows that the speed differential closest to the freeway mainline is much less than the 30 mph threshold for identifying a potential impact.

For the West Campus intersection to SR-22 and East Campus Drive/Margo Avenue study location, the highest speed differential observed was 24 mph, westbound in the AM peak period, between the segments east and west of Pepper Tree Lane (see **Table 2**).

Conclusion

This memorandum presents the results of a speed differential analysis conducted using average speed data from Wejo collected in October 2019. Speed differentials less than 30 mph were found at all analyzed off-ramp locations, all but one on-ramp locations and on the analyzed conventional highway segment. Upon closer examination of the data, it was found that the speed differential at the gore point where the on-ramp ends is less than 30 mph. Thus, none of the locations recommended for analysis in the comment letter from Caltrans meet the test of finding a speed differential that exceeds 30 mph. Additional analysis would need to be conducted to determine whether or not the proposed project would add two or more car lengths to the ramp queues in any peak hour.

If you have any questions or comments we can be reached at (562) 294-5848. Thank you.

Table 1: Speed Differential (SD) Analysis for I-405

Study Locations	Time of Day	NB On-Ramp Average Speed	Mainline Average Speed	Speed Differential	SB On-Ramp Average Speed	Mainline Average Speed	Speed Differential	NB Off-Ramp Average Speed	Mainline Average Speed	Speed Differential	SB Off-Ramp Average Speed	Mainline Average Speed	Speed Differential
1. I-405 at Bellflower Boulevard	AM	30	30	0	36	63	27	26	26	0	42	59	17
	PM	34	45	11	24	29	5	32	38	6	33	29	4
2a. I-405 at Palo Verde Avenue	AM	20	31	11	-	-	-	24	33	9	-	-	-
	PM	20	44	24	-	-	-	25	43	18	-	-	-
2b. I-405 at Palo Verde/Woodruff Avenue	AM	-	-	-	20	56	**36**	-	-		48	63	15
	PM	-	-	-	17	35	18	-	-	-	31	29	6
2c. I-405 at Palo Verde/Stearns Avenue	AM	-	-	-	36	62	26	-	-	-	-	-	-
	PM	-	-	-	35	51	16	-	-	-	-	-	-
3. I-405 at Studebaker Road	AM	19	33	14	-	-	-	-	-	-	35	64	29
	PM	20	44	24	-	-	-	-	-	-	40	52	12

Source: Wejo, 2019. Notes: **Bold** indicates a speed differential of greater than 30 mph. NB = Northbound. SB = Southbound.

Table 2. Speed Differential (SD) Analysis for Study Location 4 (SR-22)

SR-22 Segment Analysis	Time of Day	WB Average Speed	WB Speed Differential	EB Average Speed	EB Speed Differential
West of VA Driveway/Channel St	AM	19	13	22	-
	PM	11	1	18	-
West of West Campus Drive	AM	32	12	16	6
	PM	10	3	24	6
West of East Campus Drive	AM	20	4	36	20
	PM	13	9	23	1
West of Pepper Tree Lane	AM	24	24	45	9
	PM	22	18	35	12
East of Pepper Tree Lane	AM	48	-	48	3
	PM	40	-	48	13

Source: Wejo, 2019. Notes: EB = Eastbound. WB = Westbound.

Figure 1. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 1: I-405 at Bellflower Boulevard

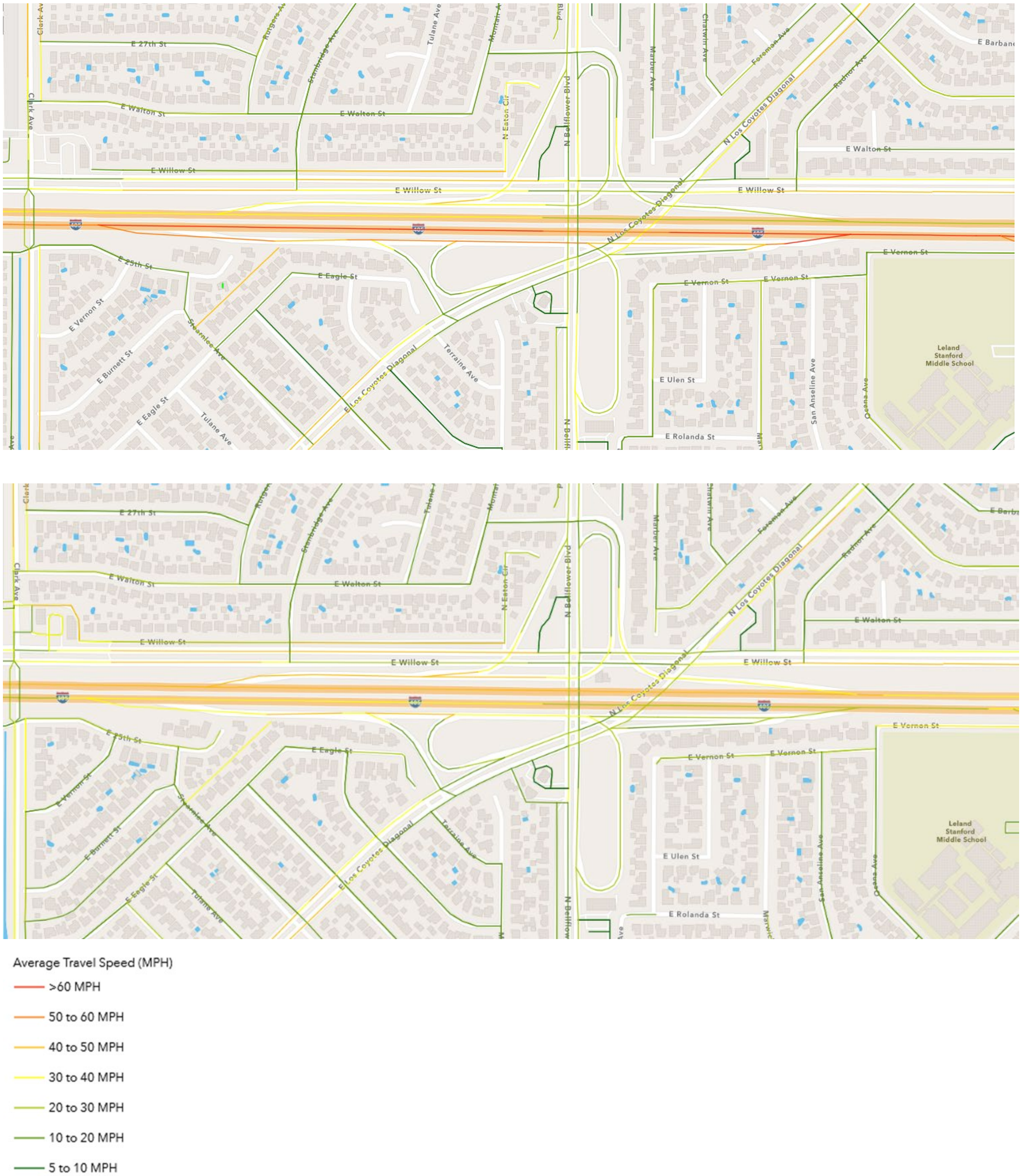


Figure 2a. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 2a: I-405 at Palo Verde Avenue

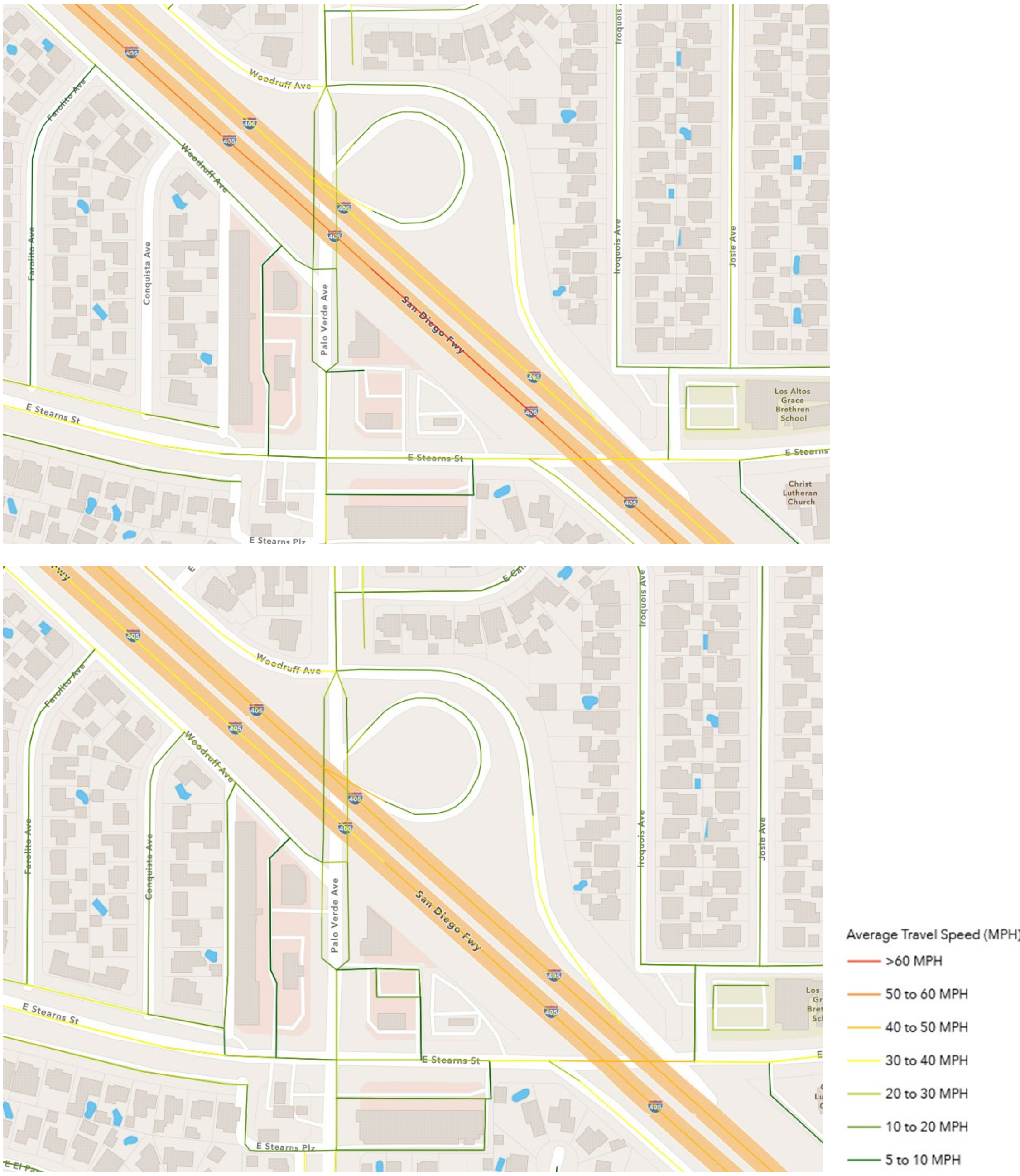


Figure 2b. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 2b: I-405 at Woodruff Avenue

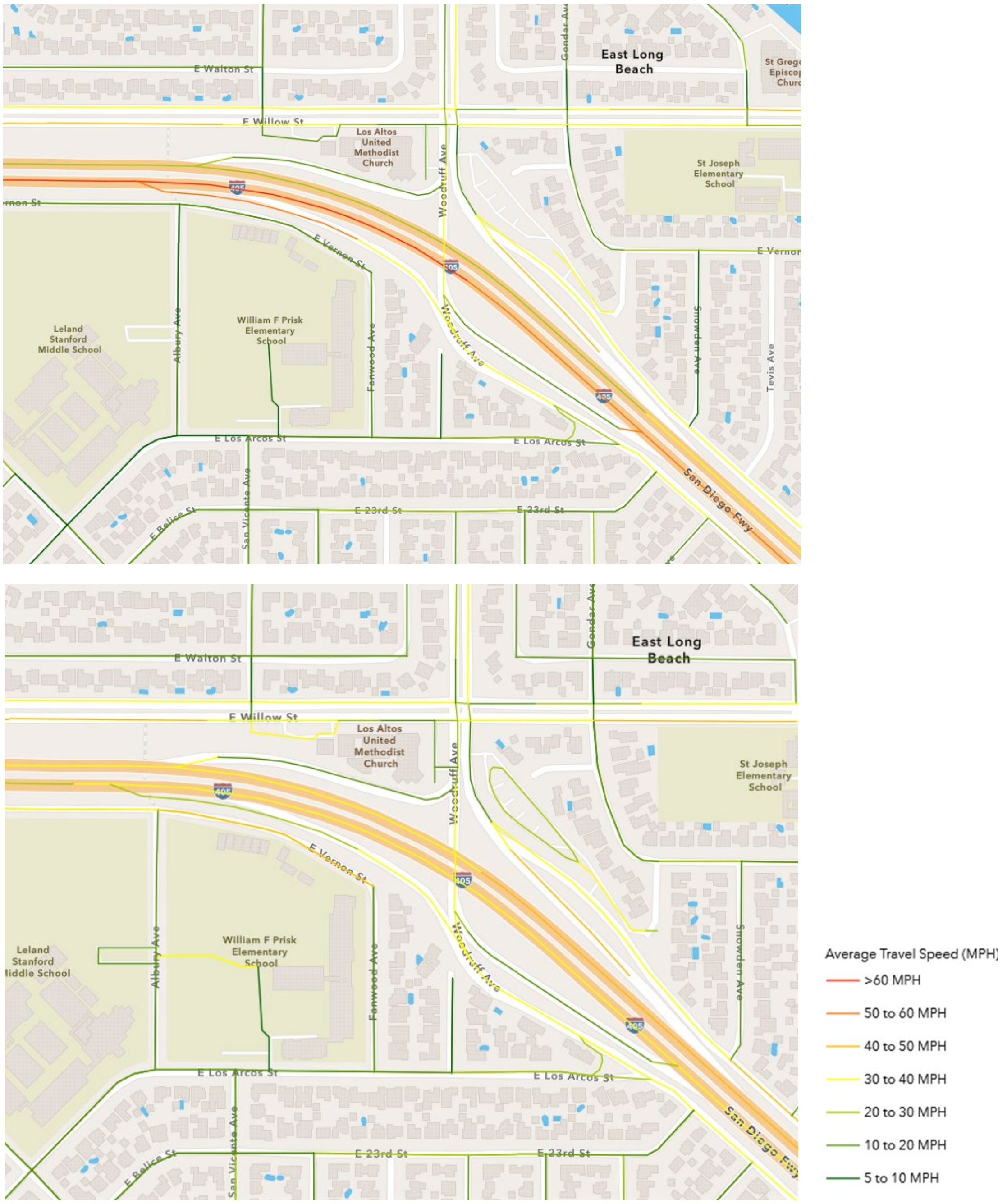


Figure 2c. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 2c: I-405 at Stearns Avenue

Figure 3. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 3: I-405 at Studebaker Road

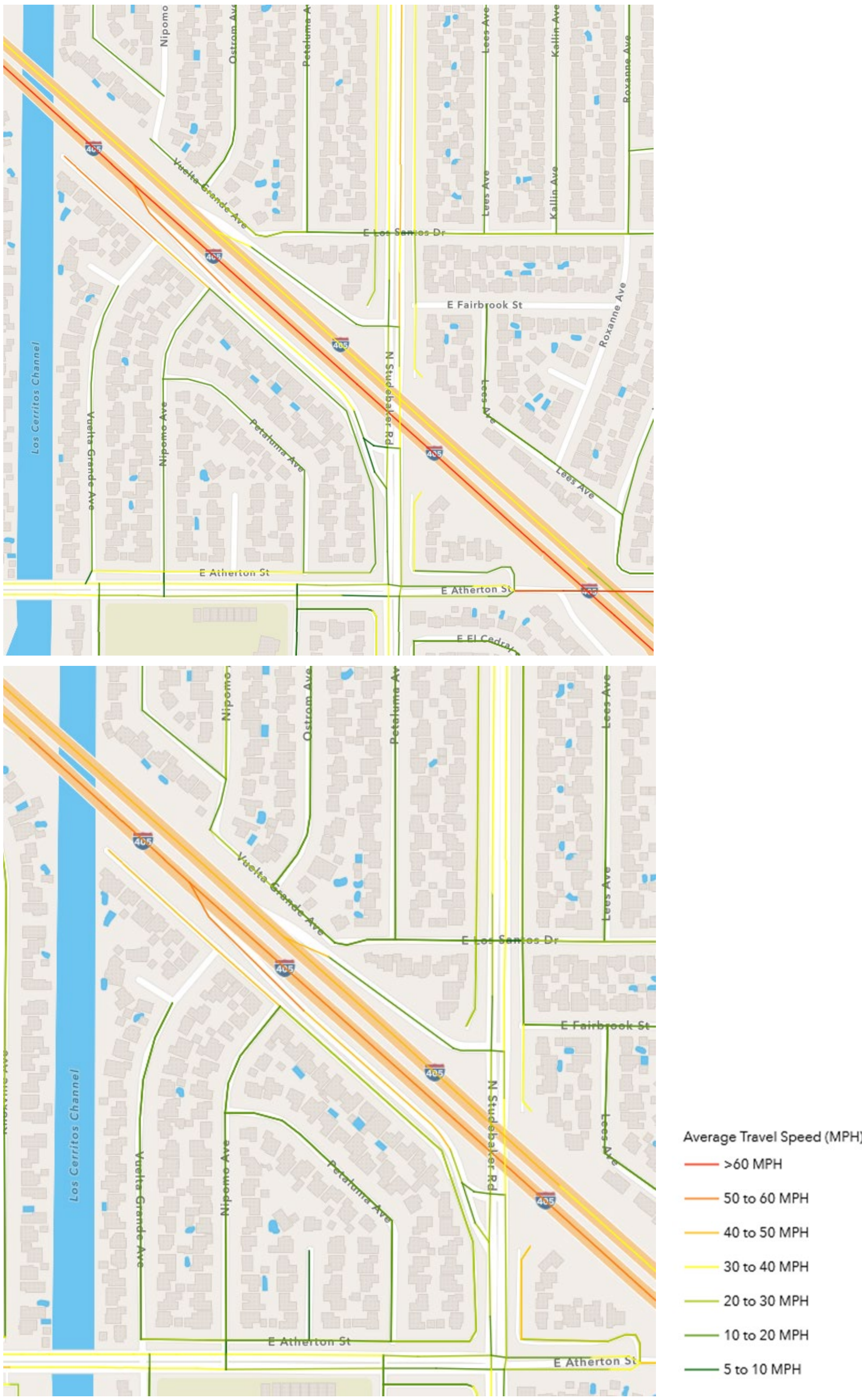


Figure 4. Wejo Average Speed by Segment AM Peak (Top) & PM Peak (Bottom) at Study Location 4: SR-22 from West Campus Drive to East Campus Drive/Margo Avenue Intersection