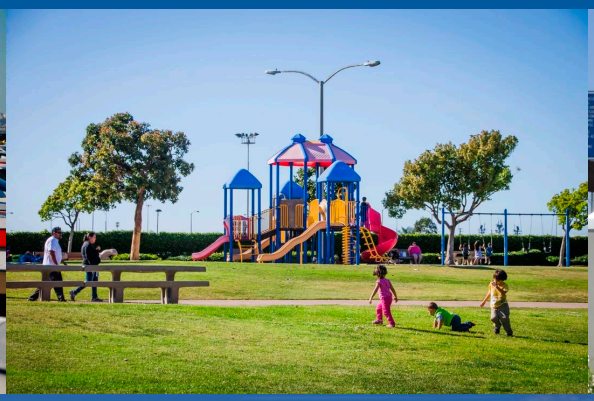
Final Environmental Impact Report

National City Bayfront Projects & Plan Amendments

UPD# EIR-2018-232; SCH# 2018121054







VOLUME 3 of 6



September 2022

PORT of SAN DIEGO
Environment

DRAFT ENVIRONMENTAL IMPACT REPORT
for the
National City Bayfront Projects & Plan Amendments

UPD # EIR-2018-232
State Clearinghouse (SCH) #2018121054

Volume 3 of 6~~II of V~~

Appendices A through G

Lead Agency:

San Diego Unified Port District
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San Diego, CA 92112-0488

Contact: Anna Buzaitis, (619) 686-7263

September 202~~0~~1

Appendix A

NOP/IS Checklist

San Diego Unified Port District
P.O. Box 120488
San Diego, California 92112-0488
(619) 686-6283

NOTICE OF PREPARATION
of a
DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT TITLE: **NATIONAL CITY BAYFRONT PROJECTS & PLAN AMENDMENTS (UPD #EIR-2018-232)**

APPLICANT/ PROPONENT: San Diego Unified Port District, City of National City, GB Capital Holdings, Pasha Automotive Services

LOCATION: National City, California (see Figure 1)

REFERENCE: California Code of Regulations, Title 14, Sections 15082(a), 15103, 15375.

The San Diego Unified Port District (District) will be the Lead Agency in preparing an Environmental Impact Report (EIR) for the project (proposed project or project) identified above. The District is soliciting input and feedback from various agencies, stakeholders, and the public pertaining to the scope and content of the environmental information that will be included in the EIR. For certain agencies, this may be germane to statutory responsibilities in connection with the proposed project. An agency may need to use the proposed project's EIR when considering its permit or other approval for the project. The project description, location, and possible environmental effects of the proposed project are contained in the attached materials.

Due to the time limits mandated by state law, your comments on environmental concerns must be sent at the earliest possible date but no later than **5:00 p.m. on Thursday, January 31, 2019**. Comments should be mailed to: San Diego Unified Port District, Planning Department, 3165 Pacific Highway, San Diego, CA 92101 or emailed to: abuzaiti@portofsandiego.org.

A public scoping meeting regarding the proposed EIR will be held on Thursday, January 24, 2019 from 6:00 p.m. to 8:00 p.m. at the National City Aquatic Center, 3300 Goesno Place, National City, CA 91950.

For questions on this Notice of Preparation, please contact Anna Buzaitis, Program Manager, at (619) 686-7263.

Signature: _____ Date: 12/19/18

Lesley Nishihira
Director, Planning

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San Diego Unified Port District
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San Diego, California 92112-0488

NOTICE OF PREPARATION
of a
DRAFT ENVIRONMENTAL IMPACT REPORT
for the
NATIONAL CITY BAYFRONT PROJECTS AND PLAN AMENDMENTS
(UPD #EIR-2018-232)

INTRODUCTION

Publication of this Notice of Preparation (NOP) initiates the San Diego Unified Port District's (District's) environmental review and analysis of the National City Bayfront Projects and Plan Amendments Project (project or proposed project) pursuant to the California Environmental Quality Act (CEQA). The NOP is the first step in the CEQA process. It describes the proposed project and is distributed to responsible agencies, trustee agencies, involved federal agencies, and the general public. As stated in State CEQA Guidelines Section 15375, the purpose of the NOP is "to solicit guidance from those agencies as to the scope and content of the environmental information to be included" in the Environmental Impact Report (EIR). The NOP provides an opportunity for agencies and the general public to comment on the scope and content of the environmental review of a proposed project.

The proposed project would include:

- Changes to land and water use designations in the District's Port Master Plan (PMP);
- Amendments to the City of National City's (City's) Local Coastal Program (LCP), General Plan, Harbor District Specific Area Plan, Land Use (Zoning) Code, and Bicycle Master Plan that would include changes to jurisdictional boundaries; changes to subarea boundaries; and changes to land use, specific plan, and zone designations (City Program – Plan Amendments);
- Construction and operation of a recreational vehicle (RV) park, modular cabins, dry boat storage, up to four hotels, and an expanded marina (GB Capital Component);
- Construction and operation of a rail connector track and storage track (Pasha Rail Improvement Component);
- Closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street as well as West 28th Street between Tidelands Avenue and Quay Avenue and redesignation of the area from Street to Marine-Related Industrial in the District's PMP (Pasha Road Closures Component);
- Construction and operation of Segment 5 of the Bayshore Bikeway (Bayshore Bikeway Component); and
- Construction and operation of hotel, restaurant, retail, and/or a combination of tourist/visitor-serving commercial development north of Bay Marina Drive and the

potential closure or narrowing of Bay Marina Drive west of Marina Way to through vehicular traffic (City Program - Development).

The proposed PMP Amendment (PMPA) and corresponding LCP Amendment (LCPA) to clarify jurisdictional land use authority, redesignate land uses and the balancing of commercial and maritime uses is herein referred to as the "Balanced Plan."

The Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, Pasha Road Closures Component, and a portion of the Bayshore Bikeway Component are all within the District's jurisdictional boundaries. Consequently, changes proposed by these components would require an amendment to the PMP, collectively "Port Master Plan Amendment Component" or "PMPA Component," as follows:

- Incorporate the Balanced Plan, GB Capital Component, Pasha Rail Improvement Component, and the alignment of the Bayshore Bikeway into the PMP;
- Remove the Street designation for the street closures associated with the Pasha Road Closures Component and redesignate these areas as Marine-Related Industrial; and
- Additionally, approximately 11.50 acres of Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, would be added to the PMP.

Most of the proposed Bayshore Bikeway Component and the entire proposed City Program are within the City's jurisdiction. Consequently, the City Plan Amendments would be as follows:

- Remove the approximately 11.50 acres of the Balanced Plan, located mostly on the GB Capital site east of the mean high tide line and owned in fee by the District, from the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, and Land Use Code to reflect changes in land use and jurisdictional authority;
- Incorporate seven parcels north of Bay Marina Drive and adjacent rights-of-way into the Harbor District Specific Area Plan; and
- Amend the Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway.

Future development within the City's jurisdiction may require Coastal Development Permits (individually, CDP and collectively, CDPs) and other development permits such as planned development permits, conditional use permits, subdivision/parcel maps, street vacations, and other discretionary or ministerial entitlements to implement the project.

PROJECT PROPONENT(S)/APPLICANT(S)

- San Diego Unified Port District
- City of National City
- GB Capital Holdings
- Pasha Automotive Services

PROJECT LOCATION

As depicted in Figure 1, the proposed project is located in National City, California, within the jurisdictions of the San Diego Unified Port District (District) and City of National City. The location of a project component is referred to as a project site, and collectively the locations of the project components are referred to as the "project sites." The project sites are generally accessed by Marina Way, Bay Marina Drive, and Tidelands Avenue, and are generally bordered by industrial uses and Civic Center Drive on the north, the Sweetwater Channel on the south,

the San Diego Bay National Wildlife Refuge (Sweetwater Marsh Unit) and Interstate 5 to the east, and the National City Marine Terminal (NCMT) to the west.

PROJECT DESCRIPTION

The proposed project includes both landside and waterside components, as well as amendments to the District's PMP and the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan. The following subsections describe the key project components in detail and as depicted in Figure 2.

Marina District Balanced Land Use Plan Component (Balanced Plan)

The proposed project would include adoption and implementation of the National City Marina District Balanced Land Use Plan (Balanced Plan), which covers an approximately 60.9-acre area north of the Sweetwater Channel in the District's land use jurisdiction, as shown on Figure 3. The Balanced Plan proposes to reconfigure areas within the Marina District that are designated within the PMP as Park/Plaza, Commercial Recreation, Marine Terminal, Marine-Related Industrial, Recreational Boat Berthing, and Street land uses. The Balanced Plan's proposed land use redesignations and associated policies proposed for the amendments to the District's PMP and the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan are necessary to carry out the GB Capital Component, Pasha Rail Improvement Component, and Pasha Road Closures Component, as described above. Consequently, the project components are intrinsically part of the Balanced Plan. The specific transportation improvements, public access improvements, and land/water use designation changes included in the Balanced Plan and how they relate to the different project components are described below.

Transportation Improvements

The Balanced Plan consists of several proposed transportation improvements:

- Realign Marina Way from its existing alignment to form a curve that rounds out to the west when traveling toward the Balanced Plan area and connect to the proposed new park entrance (Proposed/new Road D1). Utilities would be relocated from the existing Marina Way right-of-way (ROW) to the realigned Marina Way ROW. The realigned Marina Way ROW, which is proposed to be approximately 70 feet wide, is identified as Road D3 (realigned Marina Way) in Figures 3 and 4. The GB Capital Component, discussed below, proposes a configuration of the realigned Marina Way that is slightly varied from the configuration proposed under the Balanced Plan.
- Close West 32nd Street east of Tidelands Avenue, allowing for the realignment of Marina Way as proposed above, as shown on Figure 4. Potential relocation of utilities is also proposed.
- Add a connector rail track to provide an additional point of connection between the existing rail yard along the west side of Marina Way and the east side of the National Distribution Center, north of the Balanced Plan area, to the existing rail line north of the existing West 32nd Street and west of Tidelands Avenue. A storage track may be also be provided north of and parallel to the connector rail track. The area between the realigned Marina Way/Road D3 and connector rail track would form a buffer area that could accommodate the required rail service area (i.e., 15-foot-wide setback from rail track) on the southern side of the connector rail track. The location of the connector rail track is shown on Figure 3. This connector rail track is also part of the Pasha Rail Improvement Component discussed below.

- Close the southern half of the existing Goesno Place south of West 32nd Street to vehicular traffic and relocate the northern portion of the road to the east, as shown as "new Road D2" in Figure 4, providing access to the GB Capital/Pier 32 Marina site from the proposed realigned Marina Way. Potential relocation of utilities is also proposed.
- Shift the southern terminus of Tidelands Avenue to the east, as shown in Figures 3 and 4 (identified as Proposed Road D1), to accommodate a reconfigured historical first point of rest (FPR).

Public Access Improvements

The Balanced Plan consists of several public access improvements:

- Increase Pepper Park by over 2.5 acres—approximately 1.52 acres to the northwest, and approximately 1-acre to the north and east—as shown on Figure 5. The Pepper Park expansion, which may also include a reconfiguration of the layout of the existing Pepper Park, has not yet been designed; however, several potential park components are being analyzed in this EIR as a "worst-case scenario" for environmental impacts.
- Provide a 100-foot habitat buffer from the delineated wetlands west of the Wildlife Refuge (Paradise Marsh) and a 200-foot building setback from the western edge of the Wildlife Refuge. Vehicular parking and low-impact non-motorized uses such as public access trails and bike paths could be located between the habitat buffer and building setback. The habitat buffers are shown on Figure 13.
- Provide a north–south public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of Marina Way, as shown on Figure 5. The north–south public access corridor would range from 20 to 40 feet wide and be centered on the existing 20-foot-wide view corridor at Pier 32 Marina. The primary use of the north–south public access corridor would be for pedestrians and bicyclists, and no vehicular parking, permanent structures, or other impediments to access would be allowed. The Bayshore Bikeway may be routed through this corridor. Modifications to this north-south public access corridor is proposed as part of the GB Capital Component, as discussed below.
- Provide an east–west public access corridor, allowing visual, pedestrian, bicycle, and emergency vehicle access within the existing alignment of West 32nd Street, as shown on Figure 5. The east–west public access corridor would range from 14 to 40 feet in width. This east–west public access corridor would be for pedestrians and may also include an ancillary bicycle path; however, no vehicular parking, permanent structures, or other impediments to access would be allowed. Modifications to this east-west public access corridor is proposed as part of the GB Capital Component, as discussed below.

Proposed Pepper Park Expansion and Reconfiguration

Pepper Park is proposed to be expanded by approximately 2.54 acres, from approximately 5.22 acres to approximately 7.76 acres. Existing amenities include a boat launch ramp, picnic tables, restrooms, fishing pier, floating boat dock, and playground equipment. The park has approximately 71 parking spaces and consistent with the District's ordinances, is open between the hours of 6:00 a.m. and 10:00 p.m.

Although the Pepper Park expansion has not yet been designed, for the purpose of providing a "worst-case scenario" for the environmental analysis, it is anticipated that the following features may be implemented:

- Reconfiguration of the existing Pepper Park layout, which may include a mixture of hardscape (e.g., paved plazas, shade structures) and new landscaping (e.g., landscaped berms, open lawn).
- An amphitheater.
- An interactive fountain/splashground.

An optional feature to the Pepper Park expansion is the City-requested relocation of the City-owned historic Granger Hall to Pepper Park. If Granger Hall is relocated to Pepper Park, it could be used as a restaurant or a special event center.

The park expansion/reconfiguration could result in additional opportunities for larger and more frequent organized events. No revisions to the boat launch ramp facility are proposed.

Proposed Land and Water Use Designation Changes

The Balanced Plan proposes several changes to existing land and water use designations (see Figure 3 for proposed land/water use configuration and roadway locations):

- Increase the overall designated Commercial Recreation area by approximately 1.17 acres, for a total of 17.39 acres. The land use changes would encompass the area located generally southeast of the realigned Marina Way. Additionally, approximately 0.3 acre of Commercial Recreation would be redesignated to Park/Plaza to allow for the expansion of Pepper Park (see below). See *GB Capital Component*, for a description of the development proposed for this area.
- Increase the designated Park/Plaza area by approximately 2.54 acres, for a total of 10.33 acres. The land use change would occur to the north, west, and east of the existing Pepper Park (also see discussion under *Proposed Pepper Park Expansion and Reconfiguration*).
- Reduce the designated Recreational Boat Berthing area by approximately 0.59 acre, for a total of 16.80 acres, by redesignating the land area (i.e., jetty) along the southern boundary of the marina that separates the marina from Sweetwater Channel from Recreational Boat Berthing to Commercial Recreation. This area is currently designated with water use designation of Recreational Boat Berthing and is proposed to be revised to the land use designation of Commercial Recreation to better reflect the existing and proposed condition of the area being land and not water. This jetty is part of the development proposed by GB Capital, as described below in *GB Capital Component*.
- Reduce the designated Marine Terminal area that is the historic FPR by approximately 0.62 acre. Specifically, Pepper Park would be expanded to the northwest into approximately 1.52 acres of the designated Marine Terminal area; however, the designated Marine Terminal area would be expanded eastward (north of the existing footprint of Pepper Park) by approximately 0.90 acre (due to the entrance into the park area being narrowed and realigned – see “new Road D1” on Figure 3), for a total of 6.76 acres (see Figure 3).
- Reconfigure and reduce the designated Marine-Related Industrial areas north of the proposed realigned Marina Way by approximately 0.4 acre, for a total of 6.49 acres.
- Reduce the designated Street land use area by 2.15 acres, for a total of 3.14 acres.

Table 1 summarizes the Port Master Plan (i.e., District jurisdiction) land/water use changes proposed by the Balanced Plan.

Table 1. Balanced Plan Area Existing and Planned Land and Water Uses for the Port Master Plan

Land/Water Use	Existing Area (acres)	Proposed Area (acres)	Difference (acres)
Marine Terminal	7.38	6.76	-0.62
Marine Related Industrial	6.89	6.49	-0.40
Commercial Recreation	16.22*	17.39	+1.17
Recreational Boat Berthing	17.34	16.80	-0.54
Park/Plaza	7.79	10.33	+2.54
Street	5.29	3.14	-2.15
Total	**60.91**	**60.91**	**--**

*Includes areas that are currently designated "Commercial Tourist" in the City's Local Coastal Program, but are being incorporated into the PMP to reflect the District's land use authority and jurisdiction.

Proposed Use Modifications to National City Aquatic Center

No land use changes are proposed to the aquatic center as part of the project; it is located in Pepper Park, and the Pepper Park expansion is anticipated to be designed around the facility. The proposed project includes modifications to existing operational restrictions in the CDP for the facility that limit existing operations and utilization of the facility[1]. Specifically, the project proposes to amend the CDP to eliminate the following restrictions:

- Class sizes are limited to a 1:6 instructor-to-student ratio.
- Water equipment rentals (e.g., kayaks, rowboats) must be docent supervised.
- Participation in aquatic center programming shall not be denied based the financial ability/inability to pay.
- Existing buoys in the Sweetwater Channel, south of Pier 32 Marina, are in place to prevent encroachment into the adjacent refuge.
- Most aquatic center participants will arrive in groups by bus.

The project also proposes to expand the allowed uses at the aquatic center to provide for more flexibility and to increase public utilization of the facility. More specifically, a portion of the facility may be used for educational aquaculture or environmental conservation uses, including small-scale research and development opportunities.

In addition, the project proposes to relocate the buoys located south of Pier 32 Marina in order to allow non-motorized watercraft to access the area farther to the east in Sweetwater Channel. The buoys would be relocated to the east side of the San Diego Gas & Electric (SDG&E) property and former railroad bridges, north and south of the channel, as shown in Figure 6. The proposed relocation of the buoys would still prevent encroachment into the refuge.

With the operational restrictions reduced and the allowed uses modified, it is anticipated that more people would visit the aquatic center under the proposed project. For example, it is also reasonably foreseeable that there will be more public interest in individual water equipment rentals, which are currently prohibited by the CDP.

[1] While these proposed modifications have separate and independent utility, they are being analyzed as part of the proposed project for efficiency.

GB Capital Component

In addition to the land and water use redesignations and transportation improvements, needed for the GB Capital Component noted above in the Balanced Plan discussion, the component would include construction and operation of an RV park, modular cabins, dry boat storage, up to four hotels, and additional moorings and improvements to the marina. In addition, as discussed above, this component would implement a new road alignment for Marina Way, public access/view corridors, and bicycle and pedestrian paths. All of the landside improvements would generally be developed within the Commercial Recreation land use designation that is proposed as part of the Balanced Plan. The majority of this component would be developed in the first phase, which is anticipated to be operational by 2022. The second phase includes up to four hotels, which would be operational based on market demand, anticipated to be developed by 2025.

The GB Capital Component would incorporate native plantings and non-invasive ornamental plants, drought-tolerant, low-maintenance plants that are well adapted to bayfront conditions throughout the project area. Hardscape materials, consistent with the character of the existing marina, would include permeable paving (porous asphalt, concrete pavers, and decomposed granite). The development would include view corridors and trails that would be connected to the adjacent marina and Pepper Park. Low-level lighting that is sensitive to the adjacent refuge and wetlands is proposed. Figures 7 and 8 show the Phase I and Phase II conceptual site plans. Figures 9 through 12 depict renderings of the hotels, dry storage, and proposed 11-story hotel tower.

Phase 1 would include the following:

- Construct and operate up to 135 sites at a proposed RV resort, including ancillary facilities such as a laundry room, swimming pool, and other support facilities. Privacy plantings and/or fencing would be incorporated into the design of the RV Park. This would generally be located on Parcels B3, B6, B7, and B8 of the Balanced Plan.
- Construct and operate approximately 40,000 square feet of dry boat storage, which would be capable of storing up to 210 boats. The boats would be kept in racks housed within up to five separate structures, each with a maximum height of 65 feet, in the area west of the realigned Marina Way/Road D3 roadway. The dry boat storage facilities would be constructed of COR-TEN® steel and perforated metal; the ground surface under the storage racks would be porous gravel or pavers. Two 500-gallon fuel tanks (diesel and gasoline) with containment would be located on the site. Siting dry boat storage in this location (west of the proposed GB Capital alignment of the realigned Marina Way/Road D3 roadway, as shown on Figure 7) would require the following modifications to the land use configuration identified in the Balanced Plan:
    - Narrowing and shifting the realigned Marina Way/Road D3 to the southeast from the alignment identified in the Balanced Plan.
    - After narrowing and shifting the realigned Marina Way/Road D3, a portion of the area between the proposed connector rail track (see *Pasha Rail Improvement Component*) and realigned roadway would be changed to a Commercial Recreation land use to allow for dry boat storage instead of the wider realigned Marina Way/Road D3 that is in the Balanced Plan. This road narrowing and shifting from a width of approximately 70 feet under the Balanced Plan, to a width of approximately 50 feet under the GB Capital Component, would accommodate approximately 1.3 acres of Commercial Recreation space northwest of the realigned Marina Way/Road D3.

  - Overall, the GB Capital Component would have approximately 0.6 acre more Commercial Recreation space than the Commercial Recreation space in the Balanced Plan. This is due to the shifting/narrowing of the realigned Marina Way/Road D3 (as discussed above), which would not only accommodate Commercial Recreation space for dry boat storage northwest of the realigned roadway, but the southeastward shift would also reduce the size of the Commercial Recreation parcels immediately southeast of the realigned roadway.

- Construct and operate up to 60 modular cabins, which would serve as independent accommodations with kitchenettes, bathrooms, and sleeping quarters, generally on Parcels B1 and B11 of the Balanced Plan. The jetty area east of the mean high tide line is currently under a long-term lease between the District and the California Department of Transportation (Caltrans).
- Construct a new, approximately 10,000-square-foot, two-story administration/recreation building adjacent to the existing marina buildings. The new structure would be constructed of wood and glass materials.
- Construct a new, approximately 4,000-square-foot, two-story building with restrooms, laundry facilities, and staff support services in the vicinity of the existing marina buildings. The building would be constructed of wood and glass materials, and would be located on Parcel B2;
- Construct a new, approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard, northeast of the proposed dry boat storage described above. The existing maintenance space on Pier 32 Marina would be relocated into this new maintenance area. As with the existing space, the new maintenance area would be used to store maintenance items such as parts, tools, paint, and supplies such as those for cleaning and landscaping. The new maintenance area is also proposed to be used by boat owners (or authorized personnel) to perform light boat maintenance such as cleaning, waxing, touch-up painting, and minor repair activities for boat electronics and engines. Heavy repairs or painting boat bottoms would not be performed on site. This maintenance space would also have a separate wash down area for the boats.
- Construct and maintain an approximately 24-foot-wide public access corridor down the existing alignment (north–south orientation) of Marina Way, in the general area identified in the Balanced Plan. This corridor, identified as the “Central Promenade” on the GB Capital plans (see Figures 7 and 8), would accommodate mainly pedestrians and bicycles but would also serve as a driveway for the occasional car or RV. The northernmost part of the Central Promenade would be 50 feet wide.
- Construct and maintain a minimum 24-foot-wide, east–west view corridor with a parking area, drive aisle, and an approximately 6-foot-wide sidewalk through the existing Pier 32 Marina parking lot, in the general area identified in the Balanced Plan.
- Construct and maintain a minimum 24-foot-wide, north–south view corridor with a roadway and sidewalk through the proposed Road D1.
- Construct and maintain a minimum 24-foot-wide north–south view corridor with a roadway and sidewalk through the proposed Road D2.
- Construct and maintain a Class I bicycle path approximately 30 feet east of Parcel B6 and west of the Wildlife Refuge/Paradise Marsh, within the western part of the “low-impact uses buffer” identified on Figure 13. This location is between the potential Routes

1 and 3 of the Bayshore Bikeway in this area (see *Bayshore Bikeway Component* below).

- Construct and maintain a pedestrian path and other approved recreational amenities generally east of Parcel B6 of the Balanced Plan area and west of the Wildlife Refuge/Paradise Marsh, within the western part of the "low-impact uses buffer" identified on Figure 13, with public access connecting to the existing marina, consistent with the Balanced Plan.
- Construct and maintain up to 20 moorings in Sweetwater Channel, south of the jetty, the majority of which (13 mooring) would be east of the mean high tide line and outside District jurisdiction.
- Construct an approximately 620-foot-long and 8-foot-wide floating dock that includes up to 30 fingers, which together total approximately 7,000 square feet, in the channel south of the jetty and proposed modular cabins. Gangways that are approximately 80 feet long and 5 feet wide are proposed to be located on the east and west ends of the floating dock to attach it to the jetty. The floating dock would be open to the public during operational hours at the marina.
- Construct an approximately 580-foot-long and 8-foot-wide dock with two 80-foot-long and 5-foot-wide gangways, which together total approximately 5,000 square feet, within the existing marina basin north of the jetty. This would allow additional boats to be side-tied to the dock.
- Allocate an area for future development of infrastructure to support aquaculture in Sweetwater Channel east of the proposed moorings, the majority of which would be east of the mean high tide line and outside District jurisdiction. The portion outside of District jurisdiction is on Caltrans property.
- Construct and maintain an approximately 4,400-square-foot pier platform at an angled southwesterly orientation, of which approximately 1,200 square feet would be over water (with an angled width of approximately 70 feet—one side having a length of approximately 100 feet, and the other side having a length of approximately 50 feet), with floating docks (approximately 120 feet long and 6 feet wide), and two gangways (approximately 80 feet long and 5 feet wide) immediately northeast of the National City Aquatic Center. When not in use (i.e., placing boats from dry boat storage into the water or removing them from the water), the pier platform and gangway would be open to the public. The pier platform, floating docks, and gangways, which would be located within part of the park expansion area of the Balanced Plan (northeast of the Aquatic Center), would serve the dry boat storage area proposed as part of the GB Capital Project, as well as the general public as a viewing platform.

Phase 2 would construct and operate up to four hotels of varying sizes and room counts:

- Construct and operate an up to three-story hotel with up to 40 rooms generally on Parcel B1 of the Balanced Plan.
- Construct and operate an up to four-story building, the first floor of which would include approximately 16,500 square feet of retail space. The upper three stories would house a hotel with up to 60 rooms. All would be constructed generally on Parcel B6 of the Balanced Plan.
- Construct and operate an up to 11-story hotel with up to 282 rooms generally on Parcel B3 of the Balanced Plan.

- Construct and operate an up to four-story hotel with up to 81 rooms, also generally on Parcel B3 of the Balanced Plan.

In order to accommodate the hotels on Parcels B3 and B6, it may be necessary to remove up to 65 RV spaces. Parking for the GB Capital Project would be available on site. Phase 1, as described above, would include up to 406 vehicle parking spaces, including one vehicle parking space within each RV site. Phase 2, as described above, would include up to 820 vehicle parking spaces, including one vehicle parking space within each RV site. Additionally, GB Capital is seeking permission from SDG&E to use a parcel east of the existing marina to accommodate additional parking.

Pasha Rail Improvement Component

Existing Rail Operations in National City

Trains that service the NCMT and surrounding industrial properties in the City of National City are owned and operated by BNSF. Empty railcars are currently stored at the BNSF National City Yard, the Cesar Chavez BNSF Yard (south of Downtown San Diego), and the NCMT on-terminal rail ladder.[2] The BNSF National City Yard, which is owned by BNSF, currently serves several industrial customers in the area, including Pasha.

The movement of railcars outside of the NCMT is dictated by rail labor union contracts. For example, movement of railcars north of the switch location near the intersection of Civic Center Drive/Harbor Drive must be done by BNSF. In addition, although BNSF can store empty railcars at the BNSF National City Yard, moving those empty railcars to the on-terminal rail ladder requires a BNSF crew to move the railcar to the switch location first. Once south and west of the switch, Pasha's crew can move the railcars. Other than when a train is being moved on or off the terminal, BNSF rail crews are not available, which creates an operational constraint for Pasha.

Independent of Pasha, BNSF has a vehicle transport business that uses some space in National City, on BNSF-owned properties located east of Tidelands Avenue, north and south of Bay Marina Drive. The BNSF operation consists of an inbound/southbound train that uses a mix of bi-level and tri-level railcars, which are loaded with vehicles for BNSF customers, not Pasha customers. Those railcars are unloaded in National City, on the BNSF-owned property, and become the empty railcars that Pasha may use for its outbound/northbound rail operations. The BNSF inbound/southbound operation results in approximately 12–15 tri-level railcars per week that are not used by Pasha and, as a result, sit empty on the rail ladder where Pasha builds/loads outbound trains. Approximately once per week, BNSF pulls the empty tri-level railcars out of the area.

Bi-level railcars can fit taller/higher-profile vehicles, such as SUVs, which cannot fit on the tri-level railcars. A bi-level railcar can fit 10 vehicles. A tri-level railcar can fit 15 vehicles. The use of bi-level railcars versus tri-level railcars is dependent on the type of vehicle that will be placed on the railcar. High-profile (i.e., taller) vehicles, such as SUVs, are the bulk of Pasha's rail transport; these vehicles require bi-level railcars and do not fit in tri-level railcars. Based on historical data (between 2013 and 2017), approximately 40% of the vehicles that arrived at NCMT by vessel were distributed by rail, whereas the remaining 60% were distributed by truck.[3]

[2] A rail ladder is a staging area with sufficient rail capacity to build and spot trains.

[3] The percentage split for transport by rail versus transport by truck is dependent on the type of vehicle/Pasha customer (e.g., Kia or Volkswagen). For example, Kia was a Pasha customer through early 2017, and Kia required that Pasha transport all Kia vehicles on rail. The split can vary from year to year, depending on the customer mix and their respective business requirements.

Proposed Rail Improvements on Lot K

Existing train activities on and around NCMT are constrained by the freight train operating windows and limitations on the length of trains. Moreover, the frequent insufficient supply of empty railcars, as well as related storage (see discussion above under *Existing Rail Operations in National City*), further constrains train operations. The Pasha Rail Improvement Component would include construction and operation of a connector track and a storage track west of the realigned Marina Way/Road D3 roadway identified in the Balanced Plan. This project component would allow Pasha to load trains more efficiently, as discussed below. The alignments of the connector track and storage track are shown on Figure 14, and are also identified on Parcels B4 and B5 of the proposed Balanced Plan (see Figure 3).

The connector track would connect the existing rail and loop track on the NCMT, west of the National Distribution Center, to additional railcar storage at the existing BNSF National City Yard, just east of the National Distribution Center. The storage track would provide additional railcar storage by adding a second track parallel to and north of the connector track. Figure 14 identifies the locations of the existing National Distribution Center, the existing BNSF National City Yard, the proposed connector track, and the proposed storage track. The project does not propose to remove any existing rail track.

Connector Track

The BNSF National City Yard has eight tracks, switches, and can hold approximately 50 rail cars. BNSF can use the rail yard either for multi-level auto rail cars or for storage for manifest train rail cars, giving them more flexibility for operations. As discussed above, the connector track portion of the Pasha Rail Improvement Component would improve efficiencies for Pasha's operations at NCMT. The improved efficiencies are due to Pasha no longer requiring BNSF to pull empty railcars north of the NCMT to the switch near Civic Center Drive and Harbor Drive and then having to send them back to the NCMT on the loop track, which can take a considerable amount of time because it requires dependence on BNSF rail crews. Instead, empty railcars could be pulled on the connector track directly from BNSF's National City Yard to the loop track on NCMT, resulting in reduced maneuvering and quicker train build times. The reduced maneuvering and quicker train builds would result from (1) the shorter distance required to pull the railcars (from the BNSF National City Yard instead of up to the switch near Civic Center Drive/Harbor Drive) and (2) the ability to avoid relying on BNSF crew availability to pull the railcars through the switch location by using Pasha employees using a small railcar mover. A comparison of the existing and proposed train movements is shown in Figure 15.

Notably, although the connector track would reduce the number of maneuvers and the time associated with these actions, it would not significantly increase throughput compared to existing conditions.[4] The connector track, however, could better assist Pasha in accommodating the additional vehicle throughput analyzed in the NCMT Tank Farm EIR. The NCMT Tank Farm EIR analyzed a projected annual increase in throughput of 210,818 vehicles. That EIR assumed that existing trains run 6 days per week (Monday through Saturday), for a total of 300 days per year, and that the project would thus require additional annual railcar space for up to

[4] Throughput is a function of land availability, vehicle dwell time, and accessibility to empty railcars. In terms of land availability, the connector track would not increase available land, but under the Balanced Plan there would be a net loss of land available for Pasha. Regarding vehicle dwell time, the connector track would not necessarily decrease dwell time because dwell time is largely dependent on the vehicle manufacturer and the dealer (i.e., when the dealer is able to take possession of the vehicle). In terms of accessibility to empty rail cars, the connector track could theoretically increase the accessibility of empty railcars by providing a more direct link to the BNSF National City Yard; however, the availability of the empty railcars would still be dependent on whether BNSF has empty railcars and provides them to Pasha.

94,868 vehicles, which could be accommodated by adding a Sunday train to the weekly train schedule.

Storage Track

The proposed storage track would add approximately 2,000 feet of train storage, which would accommodate the storage of approximately 18–20 railcars. The storage track would allow the approximately 12–15 empty tri-level railcars, that Pasha cannot use on a weekly basis, to be stored off the on-terminal rail ladder. However, providing an additional railcar storage area would not significantly increase vehicle throughput, particularly if only tri-level cars are available, because they are unable to accommodate larger vehicles such as SUVs, which is the bulk of Pasha's rail transport needs. (The purpose of bi-level versus tri-level railcars is discussed above under *Existing Rail Operations in National City*.) The consumer demand for SUVs, and other high-profile vehicles such as trucks, is market driven and heavily dependent on gasoline prices. This new car market trend for SUVs and trucks, versus traditional sedans (i.e., low-profile vehicles), is anticipated to continue for the foreseeable future; thus, bi-level railcars are anticipated to continue to be in high demand at NCMT. While these tri-level railcars are waiting to be removed from the NCMT rail ladder by BNSF, the railcars impact Pasha's regular rail activities, causing inefficiencies for Pasha to build a train. The storage track, therefore, would provide a place for these empty tri-level railcars to be stored, off the main on-terminal rail ladder. Having these empty railcars off the on-terminal rail ladder would allow regularly scheduled inbound/southbound trains to improve efficiency upon arrival. A less congested rail ladder on terminal creates a smoother, more routine flow of railcars, which supports more efficient operations for Pasha[5].

Existing Pasha Operations in National City

Pasha handles vehicles, breakbulk and general cargo in National City. Although Pasha's operations in National City involve both vehicle and non-vehicle throughput (i.e., breakbulk and other general cargo), the vast majority of Pasha's operations involve vehicle throughput, as shown in Table 2 for years 2013 through 2017.

Table 2. Pasha Vehicle and Non-Vehicle Throughput from 2013–2017

Year	Vehicles (Units)	Containers (Metric Tons)	Breakbulk (Metric Tons)
2013	361,372	15,484	37,295
2014	401,180	18,916	20,916
2015	425,890	6,928	78,966
2016	451,612	370	6,265
2017	371,827	105	41,812
Average 2013–2017	**402,376**	**8,361**	**37,051**

Source: Port District Maritime Division, November 2018

[5] Having railcars available at NCMT in a more consistent fashion allows Pasha to use employees more efficiently because there is more certainty that the necessary railcars will be available for operations and reduces the need to rely on BNSF.

As shown in Table 2, the amount of non-vehicle throughput is a relatively small share of Pasha's overall operations. Therefore, the proposed project assumptions provided below consider the reasonably foreseeable worst-case scenario for the proposed project, based on the maximum theoretical vehicle throughput.

Existing Pasha Operations in Balanced Plan Area – Lots J and K

Pasha currently handles vehicle throughput on Lot J (south of 32nd Street, north of the Pepper Park parking lot) and Lot K (north of 32nd Street, between Tidelands Avenue and Marina Way), both of which are identified in Figure 16. Lot J and Lot K are approximately 3.35 acres and 11.37 acres, respectively, and together total approximately 14.72 acres. The criteria used to determine this "existing" per acre per year calculation includes the total number of vehicles processed in a given year and the total acreage used to process that quantity of vehicles. Vehicular throughput is a function of land availability, vehicle dwell time, accessibility to empty railcars, and market demand for vehicles (which can also influence the former two factors). Due to those limiting factors, the annual vehicle throughput at NCMT has varied since 2013, as shown in Table 2.

As noted in Table 2, in the most recent complete year (2017), Pasha processed 371,827 vehicles, whereas the year before that (2016), Pasha processed 451,612 vehicles. Given this fluctuation, District staff concluded that a baseline that accounts for vehicle throughput over a five-year average provides a more accurate measure of the current/baseline level of vehicle throughput against which to evaluate the proposed project impacts. Therefore, the baseline for this analysis is the average annual vehicle throughput from 2013 to 2017 (i.e., the average of the five years of vehicle throughput that occurred prior to issuance of the NOP). Additionally, the total amount of acreage used has also varied annually since 2013, with an average of 180 acres used from 2013 to 2017, as shown in Table 3.

Table 3. Pasha Annual Acreage Used 2013–2017

Year	**Acreage Used[6]**
2013	158
2014	170
2015	191
2016	191
2017	191
Average 2013–2017	**180**

Source: Port District Maritime Division, November 2018

Based on the same methodology for calculating "existing per acre annual vehicle throughput" that was used in the EIR for the "National City Marine Terminal Tank Farm Paving and Street Closures Project and Port Master Plan Amendment" (NCMT Tank Farm EIR),[7] the existing

[6] Approximate net acreage available for auto storage. Acreage with buildings or other uses (i.e., maintenance, landscaping) is not included in this total.

[7] San Diego Unified Port District. 2016. *National City Marine Terminal Tank Farm Paving and Street Closure Project & PMPA Draft EIR*. Available https://www.portofsandiego.org/public-

annual throughput is 2,235 vehicles per acre,[8] which equates to a total of approximately 32,899 vehicles per year for Lots J and K collectively, as shown in Table 4.

Table 4. Existing Vehicle Throughput on Existing Lot J and Lot K

Site	Existing Acreage	Existing Throughput/Existing Baseline (2,235 vehicles/acre/year)
Lot J	3.35	7,487
Lot K	11.37	25,412
TOTAL	**14.72**	**32,899**

Proposed Pasha Operations in Balanced Plan Area – Lots J and K

Implementation of the proposed project would result in all of Lot J, as well as a portion of Lot K, being transferred from use by Pasha to use by GB Capital as part of the proposed GB Capital Project component. This would decrease the land available within the Balanced Plan area for Pasha's operations by approximately 8.23 acres (from the existing 14.72 acres to approximately 6.49 acres).

In the NCMT Tank Farm EIR, the methodology used to calculate the proposed vehicle throughput, or maximum theoretical throughput, consisted of a conservative analysis that factored in a dwell time[9] of 10.9 days, and a maximum number of vehicles per acre (154 vehicles per acre). The proposed vehicle throughput is the maximum theoretical capacity of each acre of terminal land. This methodology identified that up to 5,157 vehicles per year *could* be handled on each acre at NCMT.[10] The difference between the proposed vehicle throughput per acre (5,157 vehicles) and the "existing throughput" per acre was what was evaluated in the NCMT Tank Farm EIR as the potential throughput increase associated with the NCMT Tank Farm project.

The same methodology that was used in the NCMT Tank Farm EIR to determine the potential throughput increase can be used to determine the change in throughput potential associated with the proposed project. A maximum theoretical throughput of 5,157 vehicles per acre per year is still applicable because the factors that are included in that calculation are still valid, including the maximum number of vehicles that can fit on one acre at one time (154 vehicles), and the use of a 10.9 day dwell time, which provides for a more conservative analysis than if the current average dwell time of over 20 days was used to determine maximum theoretical throughput.

As discussed above, under the proposed project Pasha's operations within the Balanced Plan area would be decreased by approximately 8.23 acres (from the existing 14.72 acres to

records/all?keyword=Tank+Farm+EIR&topic=&location=&category=93&sort_by=search_api_relevance&sort_order=DESC.

[8] 402,376 vehicles ÷ 180 acres = 2,235 vehicles/acre; 2,235 vehicles/acre is the "existing per acre baseline;" 14.72 acres x 2,235 vehicles/acre = 32,899 vehicles/year.

[9] Dwell time is the time between when a vehicle enters NCMT and when it leaves NCMT by either truck or rail. The average dwell time from 2014 to 2017 was over 20 days; 10.9 days provides for a more conservative analysis.

[10] [(154 vehicles/day/acre) x (365 days/year)] ÷ 10.9 day dwell time = 5,157 vehicles/acre/year.

approximately 6.49 acres). As shown in Table 5, this lower acreage (6.49 acres) still has the potential to result in an additional 570 vehicles per year.

Table 5. Existing and Proposed Vehicle Throughput for Lot J and Lot K

Site	Existing Acreage	Existing Throughput/ Existing Baseline (2,235 vehicles/ acre/year)	Proposed Acreage	Proposed Throughput (5,157 vehicles/ acre/year)	Net Change (Proposed – Existing
Lot J	3.35	7,487	0	0	-7,487
Lot K	11.37	25,412	6.49	33,469	8,057
TOTAL	**14.72**	**32,899**	**6.49**	**33,469**	**570**

Pasha Road Closures Component

Pasha also proposes the Pasha Road Closures Component, which includes closure of Tidelands Avenue between Bay Marina Drive on the north and West 32nd Street on the south, as well as West 28th Street between Quay Avenue and Tidelands Avenue. Tidelands Avenue between Bay Marina Drive and West 32nd Street is an access road to the back gate of the NCMT; it also serves as an access road to the main entrance of Pepper Park. The existing roadways bifurcate marine terminal operations. Their closure would increase operating efficiencies by eliminating certain internal fences and drive aisles and consolidating the two truck-away locations down to one, a reduction in the truck-away footprint of approximately 0.5 acre.[11] The road closures total approximately 6.07 acres, of which approximately 5.76 acres is within the District's jurisdiction, and the remaining approximately 0.31 acre is within the City's jurisdiction. The area of the road closures located within the District's jurisdiction would require changing the land designation from Street to Marine-Related Industrial. This land use change would require a PMPA. Table 6 summarizes the land and water use changes proposed for the Balanced Plan area and the Pasha Road Closures Component within the District's jurisdiction.

The approximately 0.3 acre of the Pasha Road Closures Component (the portion between the mean high-tide line north to Bay Marina Drive) within the City's jurisdiction would require an amendment to the City's General Plan Circulation Element, Roadway Classifications.

The road closures are proposed to occur in two phases: (1) Tidelands Avenue between West 28th Street and West 32nd Street and (2) Tidelands Avenue between West 28th Street and Bay Marina Drive as well as West 28th Street between Tidelands Avenue and Quay Avenue.

[11] The truck-away footprint is an off-terminal location where trucks are loaded. Off-terminal in this case is where security credentials (e.g., a Transportation Worker Identification Credential) are not required. Currently, because of the non-contiguous lots used for Pasha operations, there are two truck-away locations. If the Pasha Road Closures Component is implemented, there would be more contiguous space for Pasha's operations, with less fencing, and the ability to reduce two truck-away locations down to one. Having fewer barriers within Pasha's operational footprint reduces the amount of required travel and the number of movements, and allows trucks to load more efficiently at one location versus two locations.

Table 6. Balanced Plan and Pasha Road Closures Components – Existing and Planned Land and Water Uses Areas within the District's Jurisdiction

Land/Water Use	Balanced Plan – Existing Area (acres)*	Balanced Plan – Proposed Area (acres) *	Pasha Road Closures – Existing Area (acres)**	Pasha Road Closures – Proposed Area (acres)**	Proposed Totals
Marine Terminal	7.38	6.76	0.00	0.00	**6.76**
Marine-Related Industrial	6.89	6.49	0.00	5.76	**12.25**
Commercial Recreation	16.22***	17.39	0.00	0.00	**17.39**
Recreational Boat Berthing	17.34	16.80	0.00	0.00	**16.80**
Park/Plaza	7.79	10.33	0.00	0.00	**10.33**
Street	5.29	3.14	5.76	0.00	**3.14**
Total	**60.91**	**60.91**	**5.76**	**5.76**	**66.67**

Note: The Pasha Road Closures (Tidelands Avenue between Bay Marina Drive and West 32nd Street, and West 28th Street between Quay Avenue and Tidelands Avenue) are not part of the Balanced Plan.

* Within the Balanced Plan area.

** Within the Pasha Road Closures area.

***Includes 11.46 acres of land that is currently designated "Commercial Tourist" in the City's Local Coastal Program, but is being incorporated into the PMP to reflect the District's land use authority and jurisdiction. For simplification purposes, this existing "Commercial Tourist" acreage is included in the "Commercial Recreation" acreage.

As noted previously, vehicle throughput is a function of land availability, vehicle dwell time, accessibility to empty railcars, and market conditions. The road closures would have no effect on vehicle dwell time, accessibility to empty railcars, or market conditions, and is proposed to be used for truck away activities, and not explicitly for vehicle storage/processing. However, to provide a more conservative analysis, this EIR will analyze the 6.07 acres being used for Pasha's vehicle throughput operations. Maximum theoretical throughput on 6.07 acres of land could be up to 31,303 vehicles per year[12], as shown in Table 7.

Table 7. Existing and Proposed Vehicle Throughput for Pasha Road Closures Component

Site	Acreage under Proposed Project	Existing Throughput	Proposed Throughput (5,157 vehicles/acre/ year)	Difference (Potential minus Existing)
Pasha Road Closures	6.07	0	31,303	31,303

[12] Existing Throughput = 0 vehicles; Potential Throughput = 5,157 vehicles/acre/year (see Footnote 10); 6.07 acres x 5,157 vehicles/acre/year = 31,303 vehicles/year

Summary of Existing and Proposed Pasha Operations – Lot J, Lot K, and Pasha Road Closures Site

The changes in proposed land availability for Pasha within the Balanced Plan area and the Pasha Road Closures site are summarized in Table 8.

Table 8. Summary of Land Availability for Pasha within Balanced Plan and Pasha Road Closures Components Areas

Location	Existing	Proposed	Difference
Balanced Plan Area			
Lot K	11.37	6.49	-4.88
Lot J	3.35	0.00	-3.35
Pasha Road Closures Area	0.00	6.07	+6.07
Total	**14.72**	**12.56**	**-2.16**

The existing vehicle throughput on Lot J, Lot K, and the Pasha Road Closures site, and the potential maximum theoretical throughput on the proposed Lot J, Lot K, and the Pasha Road Closures site, and the difference between each is provided in Table 9.

Table 9. Comparison of Existing Vehicle Throughput and Maximum Theoretical Vehicle Throughput for the Proposed Project

Site	Existing Acreage	Existing Throughput, Existing Baseline (2,235 vehicles/ acre/year)	Proposed Acreage	Maximum Theoretical Throughput (5,157 vehicles/ acre/year)	Net Change
Lot J	3.35	7,487	0	0	-7,487
Lot K	11.37	25,412	6.49	33,469	+8,057
Pasha Road Closures	6.07	0	6.07	31,303	+31,303
TOTAL	**14.72**	**32,899**	**12.56**	**64,772**	**+31,873**

The NCMT Tank Farm EIR analyzed, among other things, a potential increase in throughput on the existing Lot J and Lot K, and therefore, a part of the potential increase in vehicle throughput associated with the proposed project site has already been analyzed in the NCMT Tank Farm EIR.[7] To determine the difference for what was analyzed as the potential throughput increase on (the existing) Lot J and Lot K in the NCMT Tank Farm EIR, and the potential throughput increase associated with the proposed project (see Table 9), the per acre calculations based on the "existing throughout" from the NCMT Tank Farm EIR needs to be calculated for the existing acreage of Lot J and Lot K; this calculation is shown in Table 10.

Table 10. Comparison of Existing and Proposed Vehicle Throughput for Existing Lot J and Lot K, per NCMT Tank Farm EIR

Site	Existing Acreage	Existing Throughput used in NCMT Tank Farm EIR Existing Condition (2,287 vehicles/acre/year)	Maximum Theoretical Throughput (5,157 vehicles/acre/ year)	Net Change
Lot J	3.35	7,661	17,276	+9,615
Lot K	11.37	26,003	58,635	+32,632
Total	**14.72**	**33,664**	**75,911**	**+42,247**

As shown in Table 9, the proposed project has the potential to increase vehicle throughput by approximately 31,873 vehicles per year over existing conditions. Comparing the proposed project's potential increase in annual vehicle throughput of 31,873 vehicles to the annual vehicle throughput that was analyzed in the NCMT Tank Farm EIR for Lot J and Lot K (42,247 vehicles, per Table 10), the proposed project would decrease the throughput potential by 10,374 vehicles per year.[13] This is a comparison of what was analyzed in the NCMT Tank Farm EIR for the existing Lot J (3.35 acres) and the existing Lot K (11.37 acres), and the difference between the maximum theoretical throughput/capacity and the existing throughput (i.e., "Maximum Theoretical Throughput" minus "Existing Throughput, Existing Baseline") for the proposed project site, which includes Pasha operations on a modified Lot K (6.49 acres) and the Pasha Road Closures (6.07 acres).

Bayshore Bikeway Component

An alignment of the Bayshore Bikeway Component would extend generally from Civic Center Drive on the north to West 32nd Street on the south, via McKinley Avenue and Marina Way. The Bayshore Bikeway Component is proposed to be a Class I bike path that traverses the City's LCP and some areas of the District's PMP. This alignment would be located away from active marine terminal and maritime-related industrial areas. Figure 17 shows each of the three optional alignments that will be analyzed under CEQA, though only one alignment would be selected for implementation. As of the writing of this NOP, the preferred route is Route 3. The route details for each of the three possible alignments are provided below.

Route 1

Route 1 would travel along the former railroad ROW to the southern end of the Best Western Marina Gateway hotel where it would turn west to travel along the western side of Marina Way. This route would then turn east on West 23rd Street and north onto McKinley Avenue.

Route 2

Route 2 would travel along the existing alignment for Marina Way from West 32nd Street to the southern end of the Best Western Marina Gateway hotel where it would turn east into the hotel parking lot, turn north between the two buildings on the hotel property, cross Bay Marina Drive, and travel north along Cleveland Avenue to West 19th Street. The route would turn west at West 19th Street, then north on Tidelands Avenue.

[13] 42,247 vehicles per year – 31,873 vehicles per year = 10,374 vehicles per year

Route 3

Route 3 would travel between the former railroad ROW and existing Marina Way on the southern end, and along McKinley Avenue on the northern end. This route would travel on Bay Marina Drive, between Marina Way and McKinley Avenue, then turn north on McKinley Avenue. The southern portion of this route is consistent with the Bayshore Bikeway location identified in the PMP and the City's Harbor District Specific Area Plan.

City Program – Development Component

The City Program proposes amendments to the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, and the Land Use (Zoning) Code for seven parcels north of Bay Marina Drive, all of which are discussed below under *City Program – Plan Amendments Component*. Six of the parcels (approximately 2.9 acres) are owned by the City and comprise two complete blocks between Bay Marina Drive to the south, West 23rd Street to the north, Harrison Avenue to the west, and Interstate 5 to the east. The remaining parcel (approximately 1.2 acres), owned by the City and leased to the San Diego Railway Association, is located at the northwest corner of Bay Marina Drive and Marina Way (formerly Harrison Avenue); the historic Santa Fe Rail Depot is located on this parcel, and no new development is proposed on this parcel.

The two City-owned, non-leased blocks are currently vacant. The City proposes to re-zone the parcels to Tourist Commercial (CT), which could allow these parcels to be developed with hotel, restaurant, retail, and/or some combination of tourist/visitor-serving commercial uses. The CT zone allows a floor area ratio (FAR) of up to 1.0, with no height limit; however, as part of the City Program – Plan Amendments Component, the City proposes to increase the FAR to 2.0 in the CT zone. The maximum allowable development with a FAR of 2.0 would be approximately 254,782 square feet of floor area. The proposed 2.0 FAR would allow for the development of desired land uses that require substantial floor areas such as hotels. The parking requirement would be based on the specific uses permitted in the CT zone.

For purposes of the analysis, an example of a potential development scenario associated with the City Program would be a hotel with up to five stories and 150 rooms, along with 15,500 square feet of restaurant space and 12,000 square feet of retail space.

The City Program would also include the potential closure, or narrowing, of Bay Marina Drive (west of Marina Way) to through vehicular traffic. All three scenarios are analyzed in this EIR, including keeping the road in its present condition with four lanes (two each way), reducing the four lanes to two lanes (one each way), and closing the road completely.

An alignment of the Bayshore Bikeway, consistent with Routes 1, 2, and 3, as described above, would traverse the City Program site, which would be located in the City and outside District jurisdiction. It would not be subject to the Public Trust. It would also be located within the California Coastal Zone and the City's LCP area. The City Program would require amendments to the City's General Plan, Land Use Code, Local Coastal Program, and Harbor District Specific Area Plan.

Port Master Plan Amendment Component

The project components that are under the District's existing planning jurisdiction are within the National City Bayfront, Planning District 5, of the PMP. This planning district is an established developed area with designated Marine-Related Industrial, Marine Terminal, Commercial Recreation, Marina, Park/Plaza, and Street land and water uses. "Marina District" is the term for the area located generally north and west of Pier 32 Marina. There are multiple actions related to the PMPA. The proposed PMPA, which would incorporate the Balanced Plan Component,

Pasha Road Closures Component, GB Capital Component, Pasha Rail Improvement Component, and a portion of the Bayshore Bikeway Component, would change the associated PMP maps, text, and tables to include the above land/water use changes associated with the project components. It would include the following more specific features:

- Change Tidelands Avenue between Bay Marina Drive and West 32nd Street, as well as West 28th Street between Quay Avenue and Tidelands Avenue, would be changed from Street to Marine-Related Industrial.
- Change the PMP maps and tables to reflect the revised land and water use designations associated with the Balanced Plan.
- Revise the Circulation/Navigation Element of the PMP to identify proposed Segment 5 of the Bayshore Bikeway within District jurisdiction.
- Modify and add public access corridor locations and widths for north–south and east–west public access corridors.

The GB Capital Project would result in a land use configuration that would vary slightly from that identified in the Balanced Plan; therefore, the PMPA would reflect the land uses associated with the Balanced Plan and be revised, where appropriate, to reflect the GB Capital Component.

City Program – Plan Amendments Component

Implementation of the City Program and most of the Bayshore Bikeway Component would require amendments to the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan (collectively, "City Planning Documents"). In addition, with the exception of the property owned by Caltrans, the area of the GB Capital Component that is east of the mean high tide line and not currently within the PMP would be amended in the City Planning Documents to reflect that this area would be added to the PMP through the project's PMPA.

In 2011, the City adopted a General Plan Update and a Land Use (zoning) Code Update, which created new land use designations and zoning classifications for the City's entire planning area. However, the new land use designations and zoning classifications do not apply to areas within the City's LCP, pending a LCPA to incorporate these changes. Consequently, land uses within the City's LCP (generally, areas west of Interstate 5) are regulated under the City's 1996 General Plan (as amended) and the previous Land Use Code that preceded the 2011 update. Prior to the 2011 updates, land uses, and zoning were identified in the 1996 Combined General Plan/Zoning Map, as amended.

The City Program would amend the City's General Plan Land Use Map and the Land Use Code Official Zoning Map to change the 1996 Combined General Plan/Zoning Map designations for five parcels that are designated Medium Manufacturing (MM) and two parcels that are designated Tourist Commercial (CT) to Specific Plan in the General Plan Land Use Map and Harbor District Specific Area Plan in the Land Use Code Official Zoning Map. The Harbor District Specific Area Plan would be amended to incorporate the seven parcels and to rezone five of the parcels from MM to CT. In addition, the FAR for the CT zone is proposed to be increased from 1.0 to 2.0. The proposed 2.0 FAR would allow for the development of desired land uses that require substantial floor areas such as hotels. The City's Bicycle Master Plan would also be amended to reflect the realignment of the Bayshore Bikeway. The LCP would be amended to reflect these changes to land use, zoning, and Specific Plan designations.

The City Planning Documents would also be amended to reflect the GB Capital Component of the project. For the portions of the GB Capital Component that are within District jurisdiction, the General Plan Land Use Map and the Land Use Code Official Zoning Map would be amended to

change the 1996 Combined General Plan/Zoning Map designation of CT to San Diego Unified Port District in the General Plan Land Use Map and Port Master Plan in the Land Use Code Official Zoning Map. The Harbor District Specific Area Plan would be amended to remove the District's jurisdictional areas of the GB Capital Component from the Specific Plan. The LCP would be amended to reflect these changes. In addition, all of the road closures would need to be removed from the Circulation Element Roadway Classifications of the City's General Plan.

The GB Capital Component extends onto a portion of the SDG&E utility corridor, east of the existing marina. This area is designated for CT uses in the City Planning Documents. The GB Capital Component improvements would be consistent with that use.

ENVIRONMENTAL CONSIDERATIONS

The attached *Initial Study/Environmental Checklist for the National City Bayfront Projects and Plan Amendments* addresses the potential environmental effects related to the proposed project and provides a discussion of which potential project-related and cumulative environmental effects would be included in the EIR. The EIR will include the following potential environmental effects of the proposed project: aesthetics, air quality, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population/housing, public services, recreation, transportation and traffic, utilities/service systems, and other potential impacts identified during the NOP process. The EIR will also address feasible mitigation measures and a reasonable range of alternatives, as well as the additional mandatory sections required by CEQA. The District will also prepare a mitigation monitoring and reporting program to address the potential significant impacts of the proposed project.

COMMENTS

The NOP is available for a public review period that starts on **Thursday, December 20, 2018, and ends at 5:00 p.m. on Thursday, January 31, 2019**. Written comments will be accepted until 5:00 p.m. on Thursday, January 31, 2019. Comments regarding the scope and content of the environmental information that should be included in the EIR and other environmental concerns should be sent to:

San Diego Unified Port District
Attn: Anna Buzaitis
Planning Department
3165 Pacific Highway, San Diego, CA 92101

or emailed to abuzaiti@portofsandiego.org

PUBLIC SCOPING MEETING

A public scoping meeting to solicit comments on the scope and content of the EIR will be held on **Thursday, January 24, 2019, at 6:00 p.m. at the National City Aquatic Center, 3300 Goesno Place, National City, CA 91950.** District staff will be available to answer project questions at the scoping meeting. Comments at the scoping meeting will only be accepted in written form.

The District, as Lead Agency pursuant to CEQA, will review the written public comments received on the NOP and at the scoping meeting to assist in determining which issues should be addressed in the EIR.

Other opportunities for the public to comment on the environmental effects of the proposed project include, but are not limited to, the following:

- A minimum 45-day public review period for the Draft EIR
- A public hearing before the Board of Port Commissioners to consider certification of the EIR

For questions regarding this NOP, please contact Anna Buzaitis, Program Manager, Planning Department, at (619) 686-7263.

ATTACHMENTS

Figure 1: Project Vicinity Map
Figure 2: Project Components
Figure 3: Proposed Balanced Land Use Plan
Figure 4: Existing and Proposed Roadways within Balanced Plan Area
Figure 5: Park and Public Access Corridors
Figure 6: Proposed Relocation of Buoys
Figure 7: Phase I of GB Capital Component
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Initial Study/Environmental Checklist for the National City Bayfront Projects and Plan Amendments EIR



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Figure 1
Project Vicinity Map
National City Bayfront Projects and Plan Amendments EIR

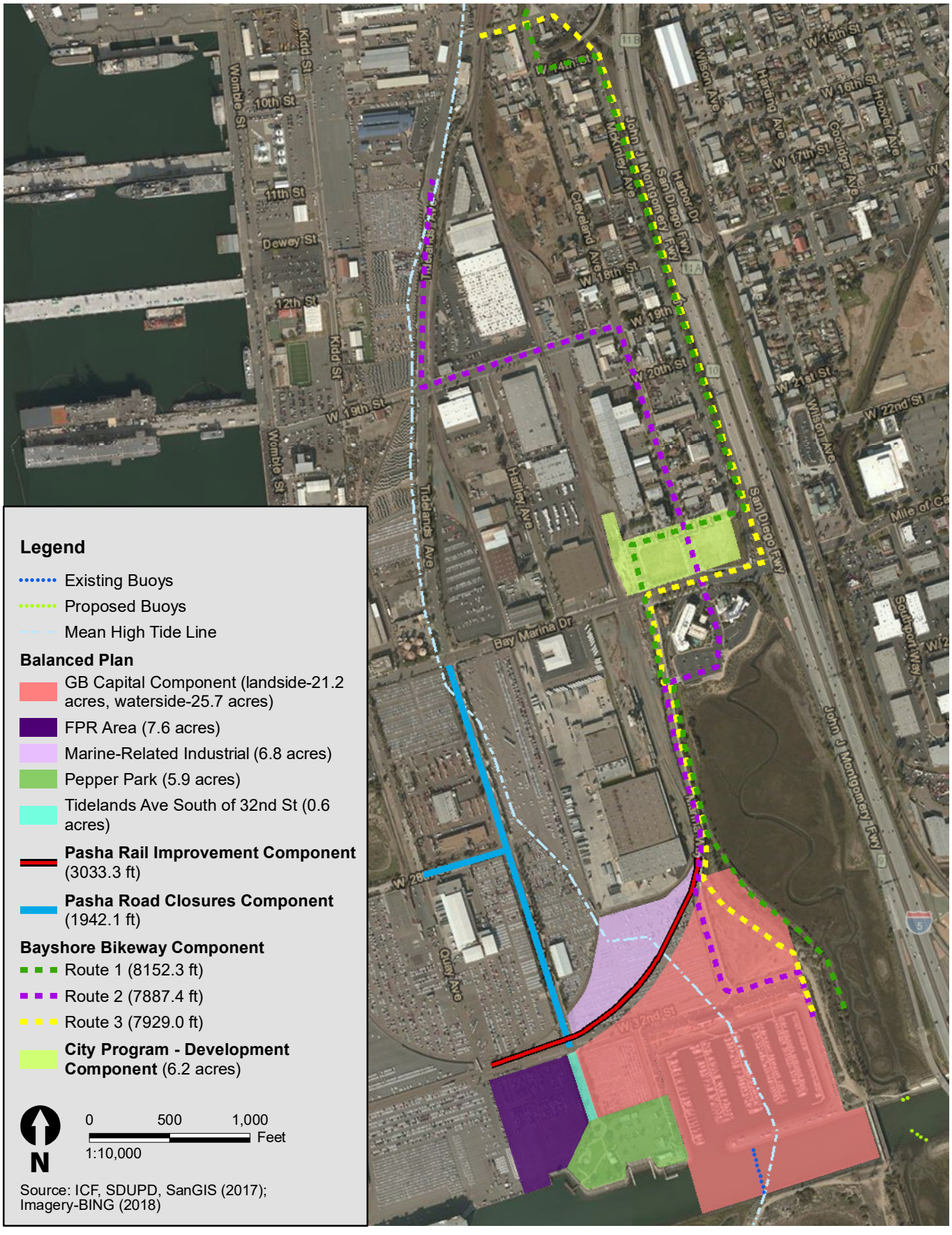

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Figure 2
Project Components
National City Bayfront Projects and Plan Amendments EIR



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Figure 3
Proposed Balanced Land Use Plan
National City Bayfront Projects and Plan Amendments EIR

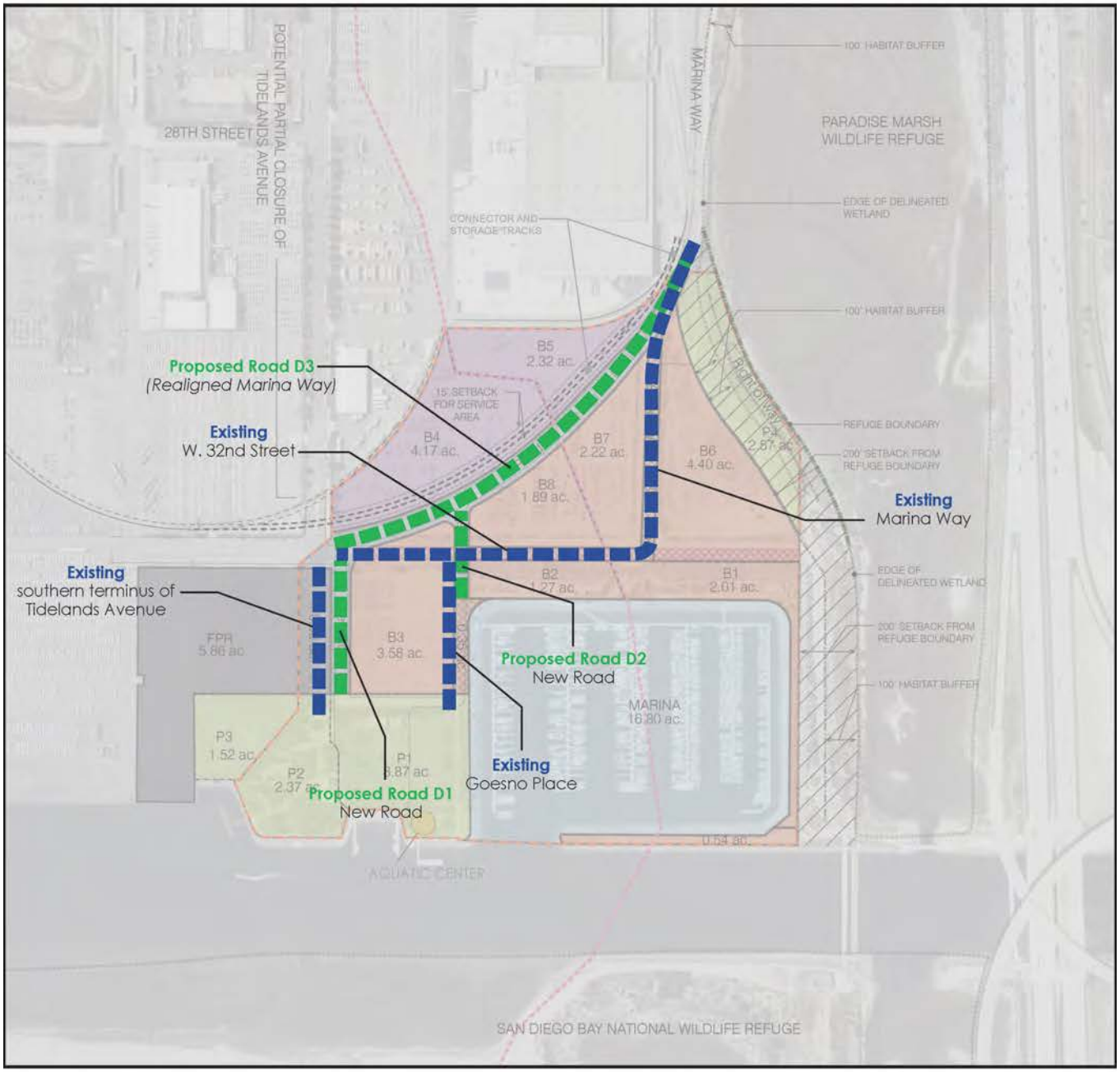

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Figure 4
Existing and Proposed Roadways Within Balanced Plan Area
National City Bayfront Projects and Plan Amendments EIR

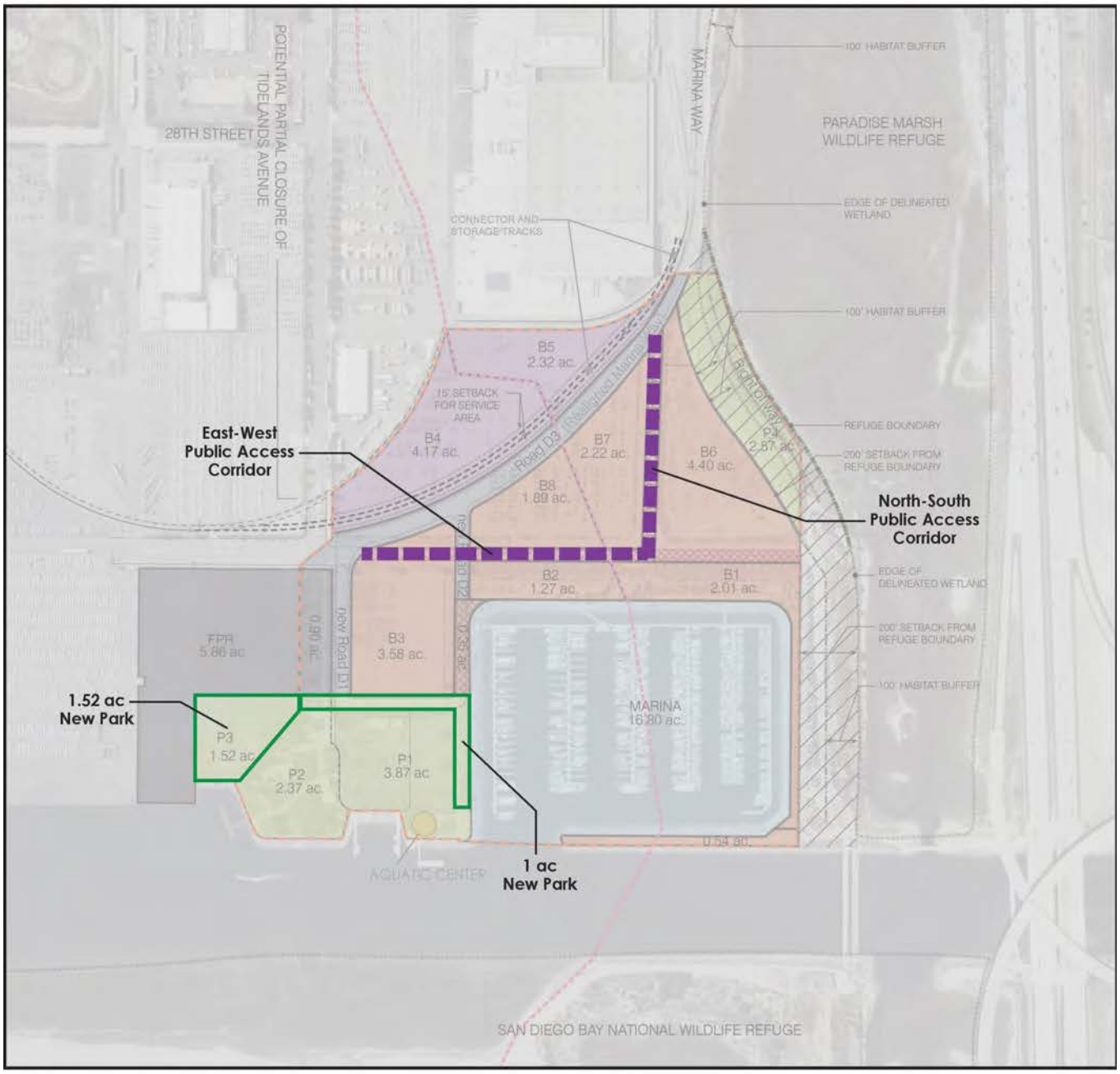

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Figure 5
Park and Public Access Corridors
National City Bayfront Projects and Plan Amendments EIR



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Figure 6
Proposed Relocation of Buoys
National City Bayfront Projects and Plan Amendments EIR

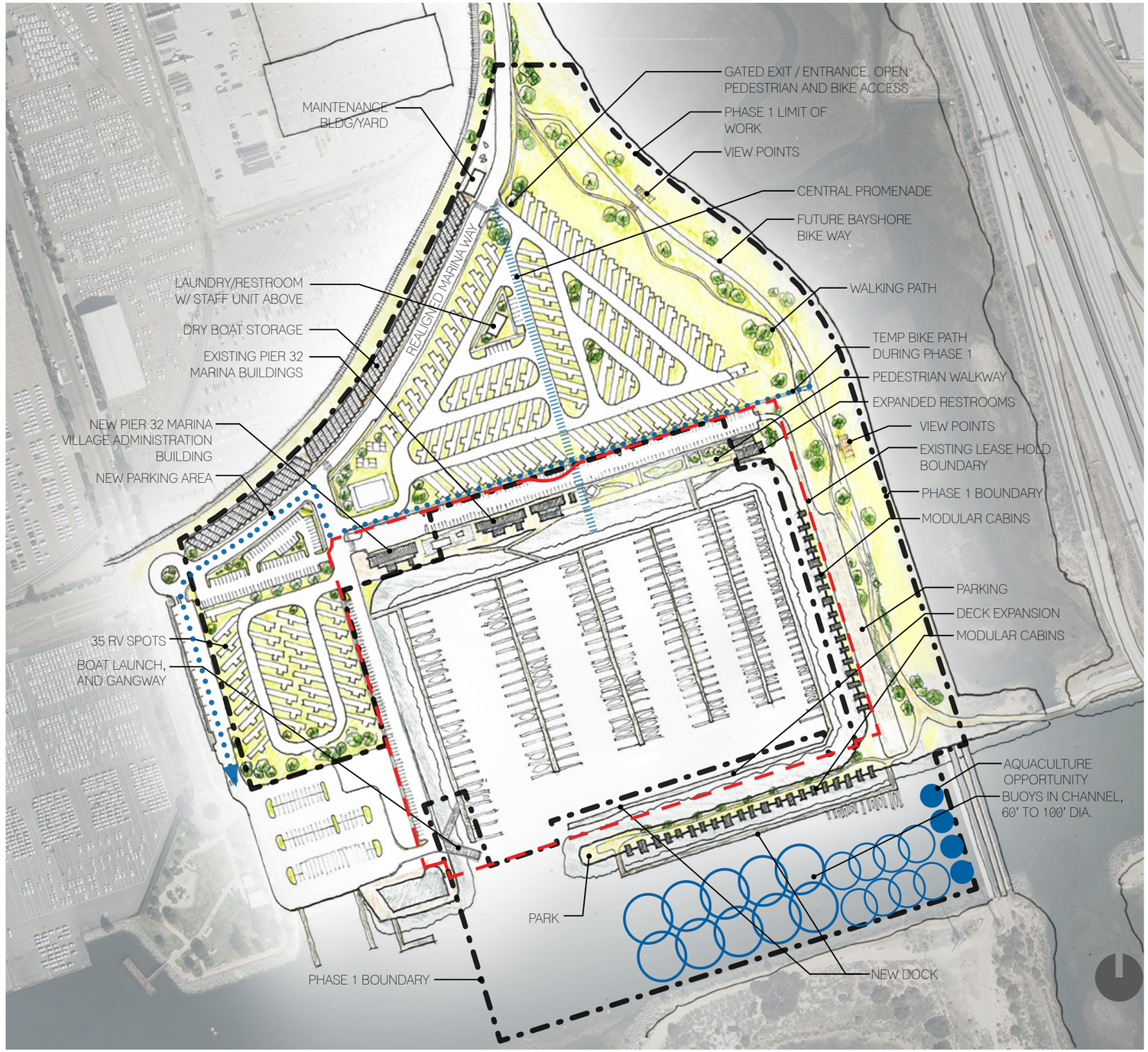

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Figure 7
Phase I of GB Capital Component
National City Bayfront Projects and Plan Amendments EIR

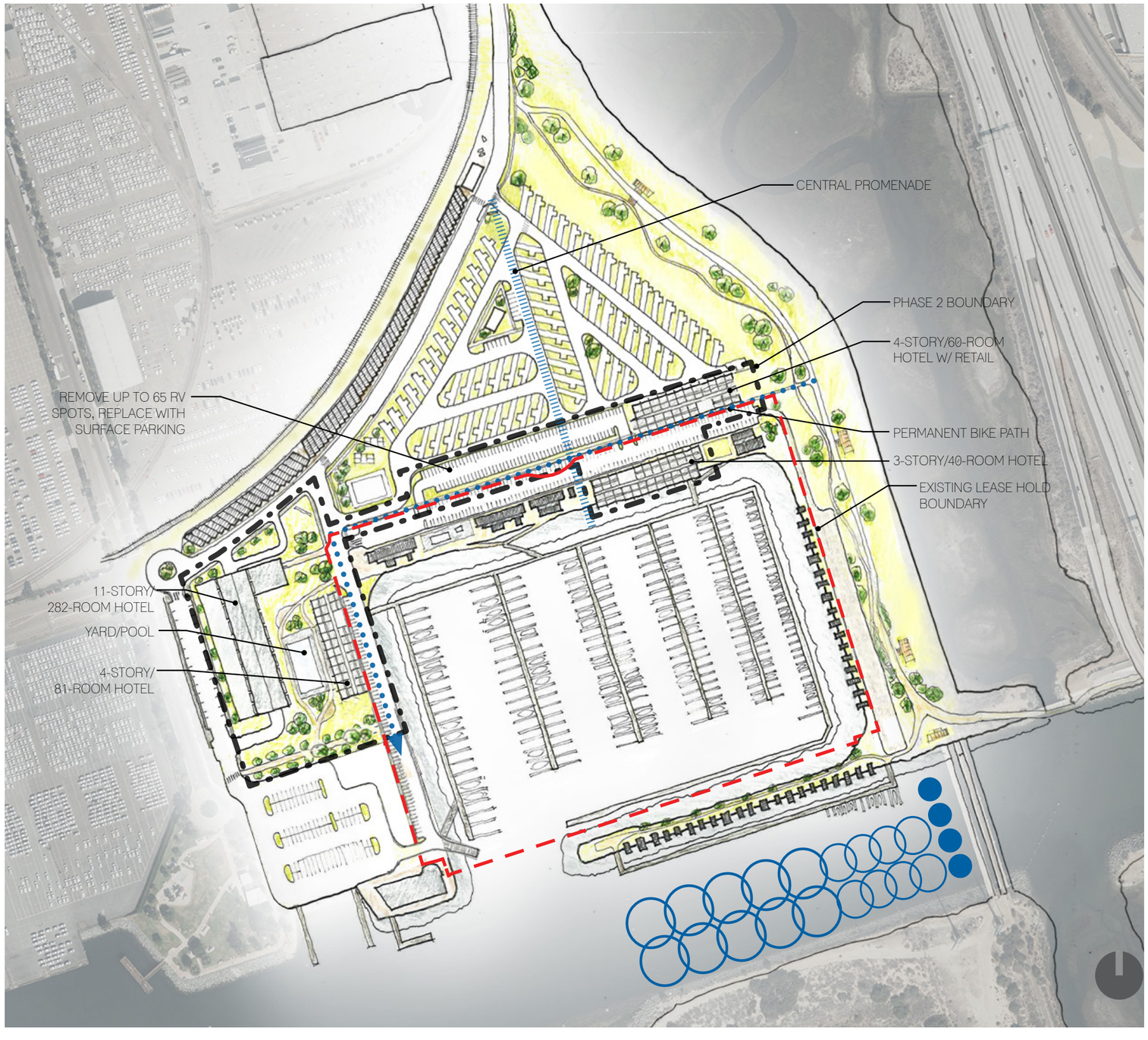

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Figure 8
Phase II of GB Capital Component
National City Bayfront Projects and Plan Amendments EIR



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Figure 9
Illustrative of Proposed Hotel on Parcel B1
National City Bayfront Projects and Plan Amendments EIR



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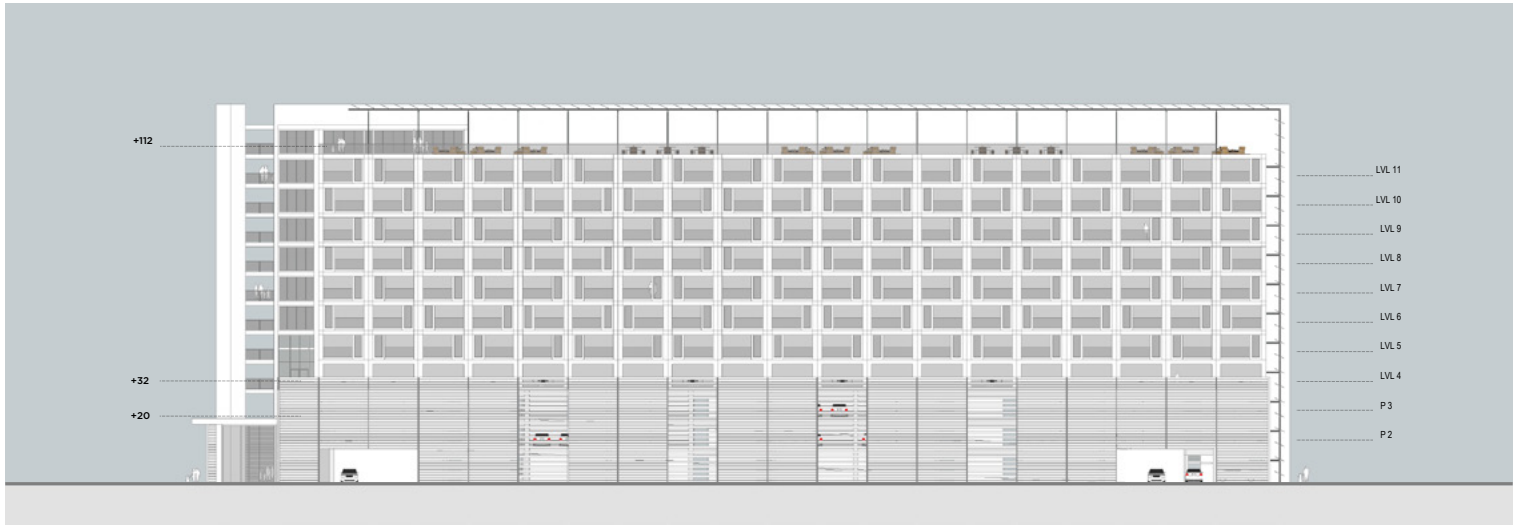
Figure 10
View of Realigned Marina Way with Dry Storage
National City Bayfront Projects and Plan Amendments EIR



EAST ELEVATION



WEST ELEVATION

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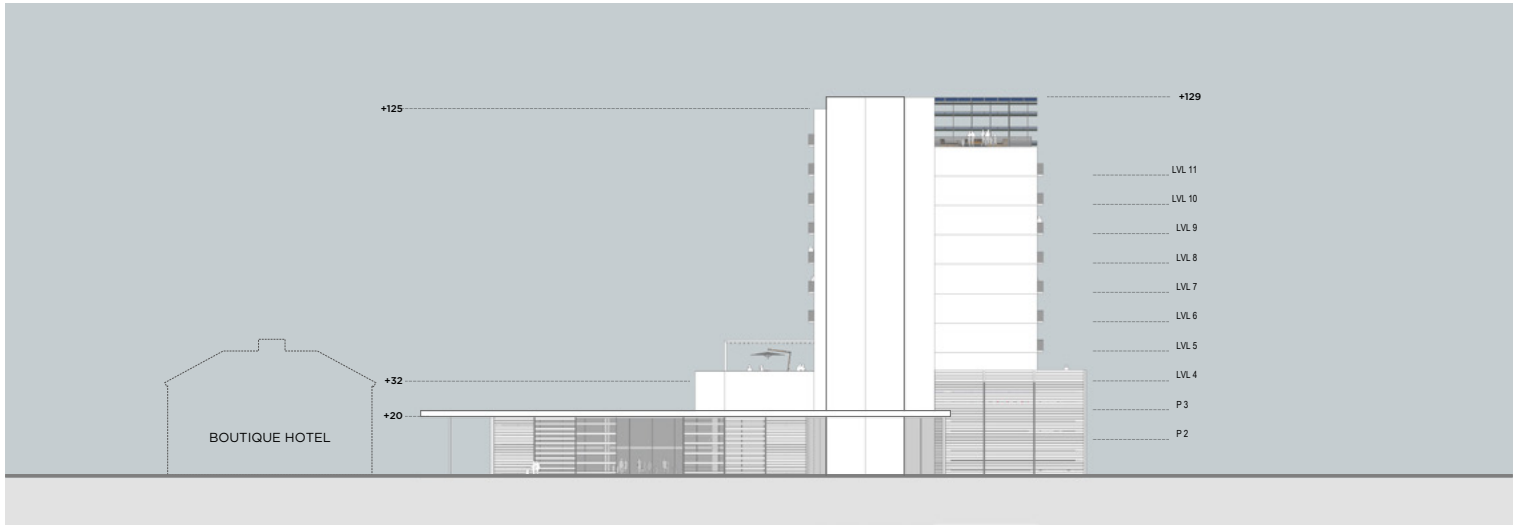
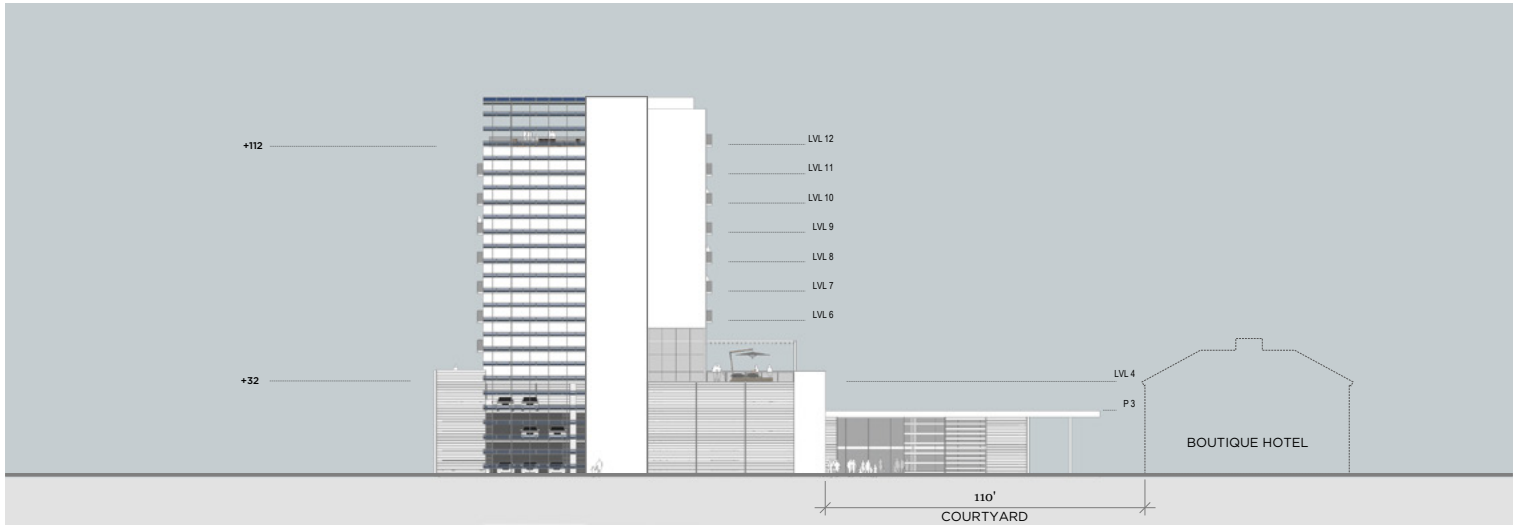
Figure 11
Phase II Hotel Tower East-West Elevations
National City Bayfront Projects and Plan Amendments EIR



NORTH ELEVATION



SOUTH ELEVATION

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Figure 12
Phase II Hotel Tower North-South Elevations
National City Bayfront Projects and Plan Amendments EIR

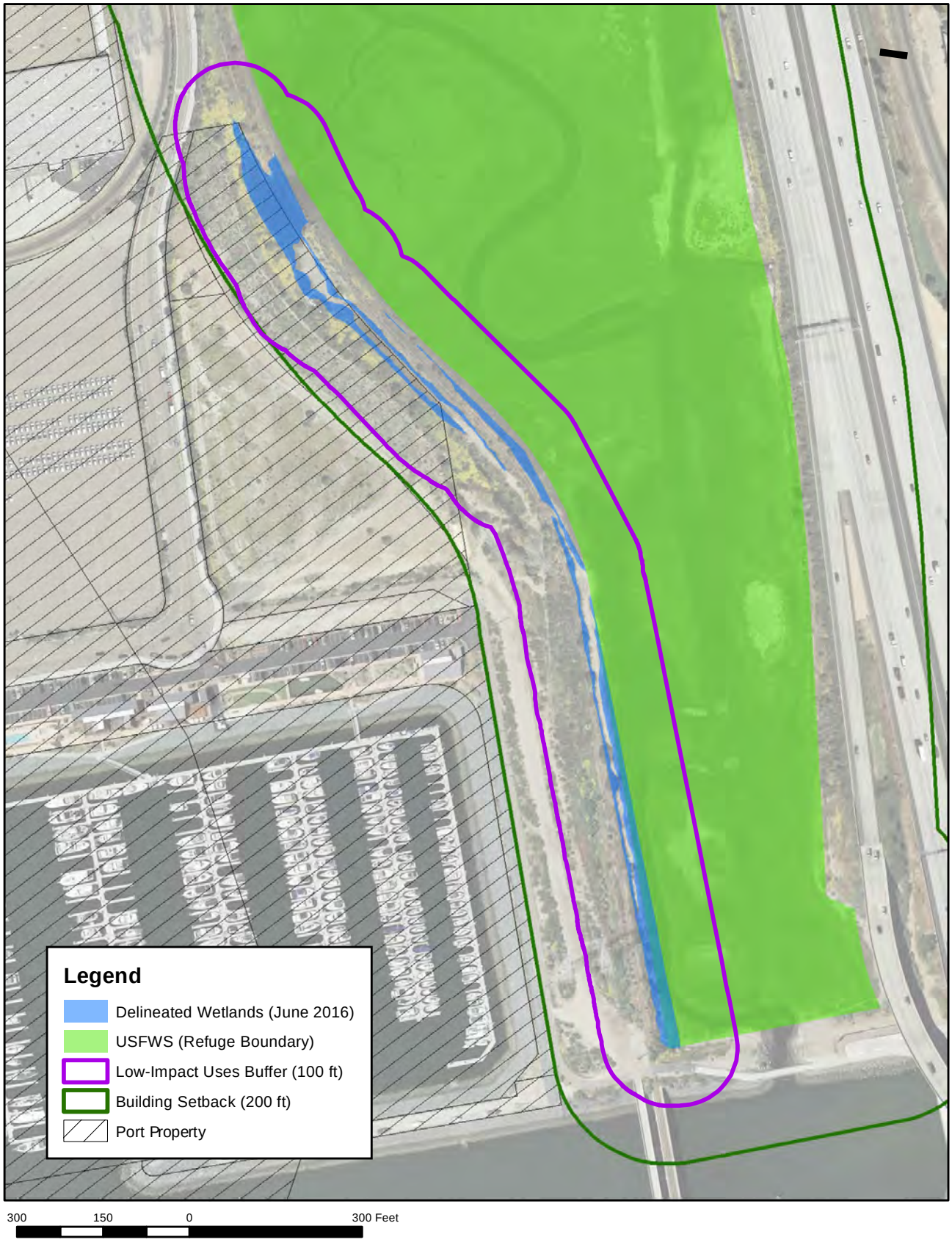

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Figure 13
Proposed Habitat Buffers
National City Bayfront Projects and Plan Amendments EIR



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Figure 14
Proposed Rail Tracks
National City Bayfront Projects and Plan Amendments EIR



Existing Rail Route



Proposed Rail Route

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Figure 15
National City Marine Terminal Rail Route
National City Bayfront Projects and Plan Amendments EIR

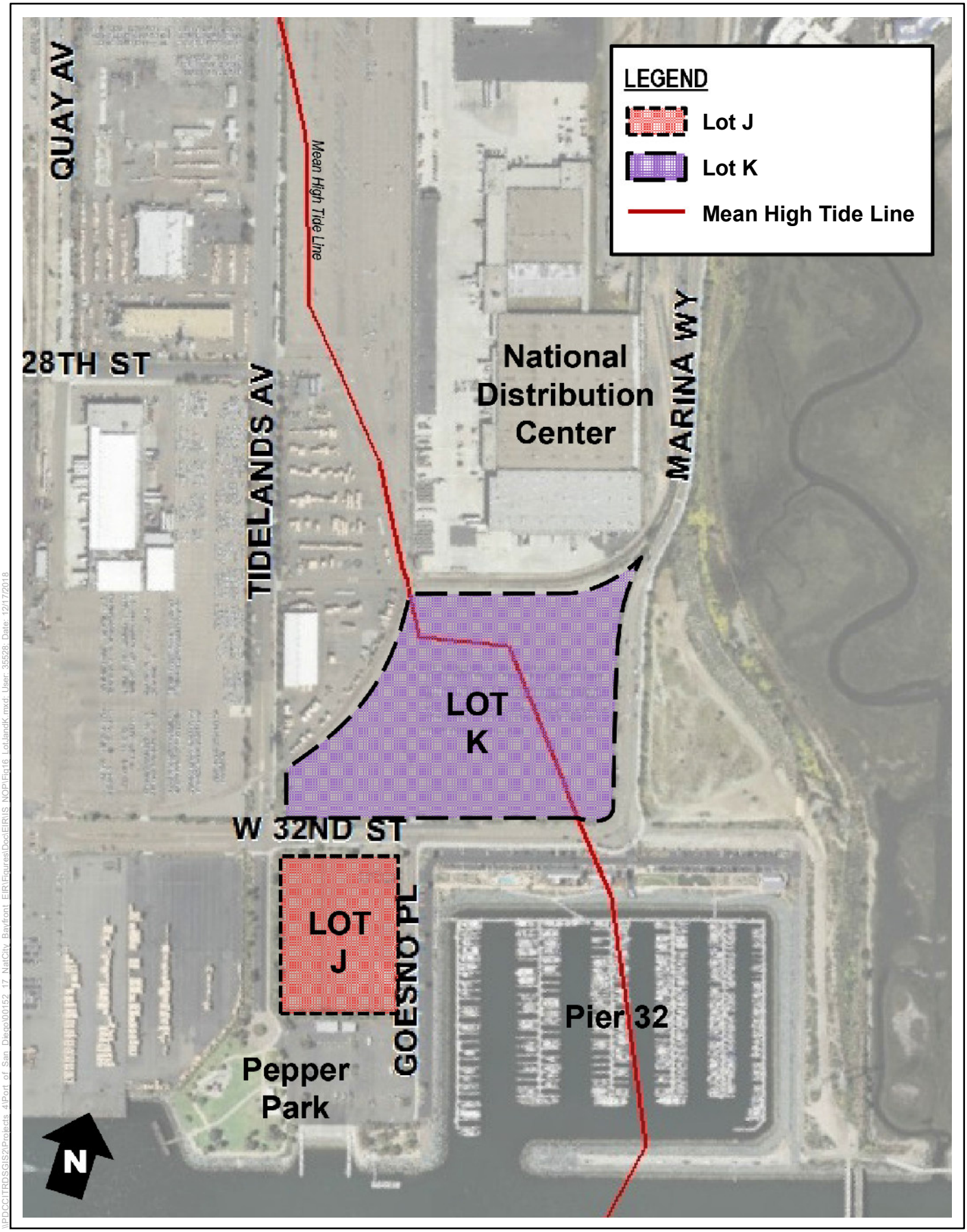

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Figure 16
Location of Lot J and Lot K
National City Bayfront Projects and Plan Amendments EIR

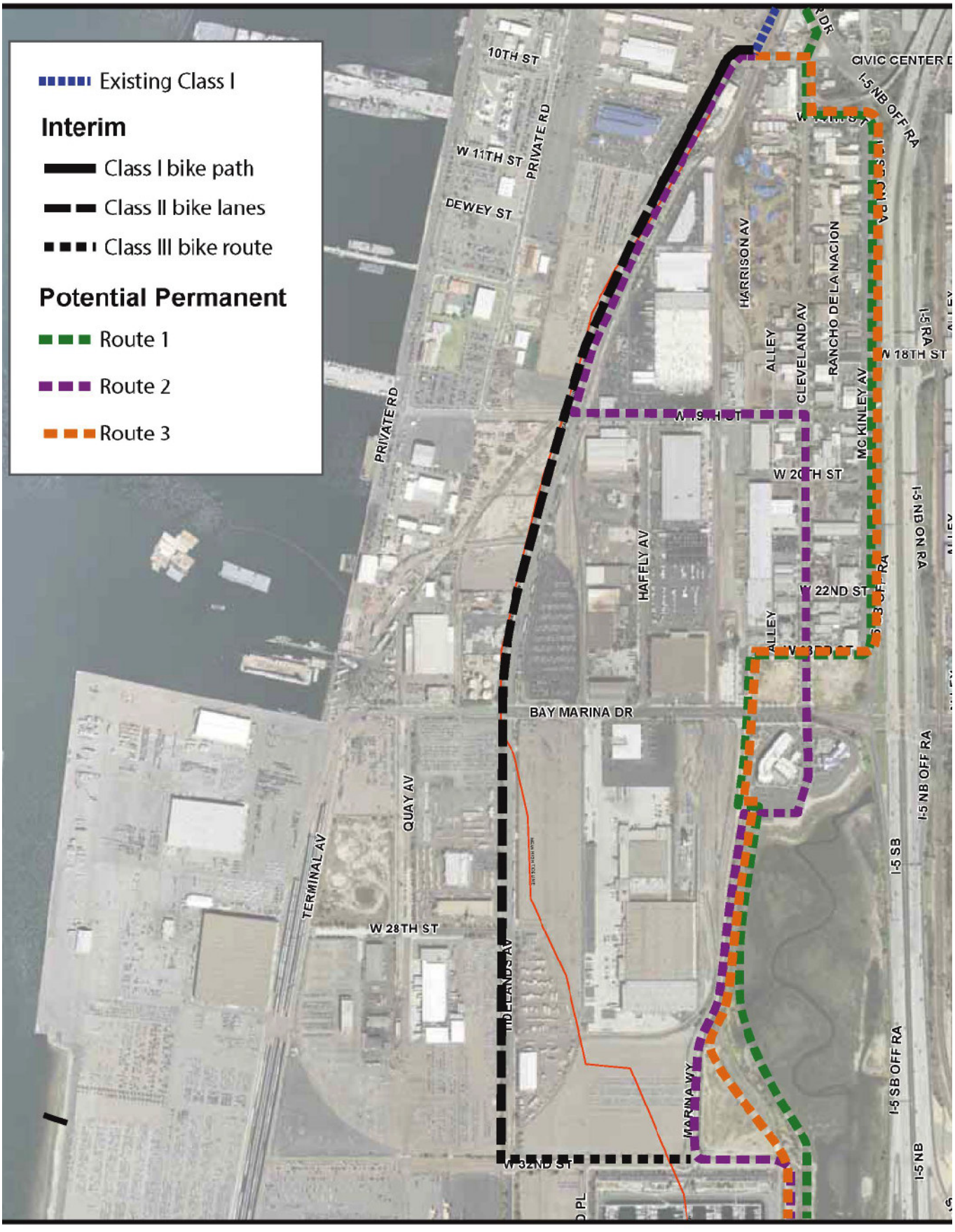

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Figure 17
Interim and Potential Permanent Alignments of SANDAG BayShore Bikeway in National City
National City Bayfront Projects and Plan Amendments EIR

NATIONAL CITY BAYFRONT PROJECTS AND PLAN AMENDMENTS

INITIAL STUDY/ENVIRONMENTAL CHECKLIST CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Prepared by:

ICF

December 2018

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Acronyms and Abbreviations

AB	Assembly Bill
ARB	California Air Resources Board
BMPs	Best Management Practices
BNSF	Burlington Northern Santa Fe
CAAQS	California Ambient Air Quality Standards
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
City Planning Documents	City's General Plan, Local Coastal Program, and Harbor District Specific Area Plan
CO	carbon monoxide
CRHR	California Register of Historical Resources
DOC	Department of Conservation
DOT	Department of Transportation
DPM	diesel particulate matter
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
INRMP	Integrated Natural Resource Management Plan
JRMP	District's Jurisdictional Runoff Management Program
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards
NAS	Naval Air Station
NCMT	National City Marine Terminal
NOLF	Naval Outlying Landing Field
NRHP	National Register of Historical Places
PM10	particulate matter of 10 microns in diameter or smaller
PM2.5	particulate matter of 2.5 microns in diameter or smaller
PMP	Port Master Plan
PMP	Port Master Plan
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
Regional Plan	San Diego Forward: The Regional Plan
SANDAG	San Diego Association of Governments
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SR-	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant

TIA	Transportation Impact Analysis
USDA	United States Department of Agriculture
USGS	United Sates Geological Survey
VOC	volatile organic compound

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Initial Study/Environmental Checklist

1.	Project Title:	National City Bayfront Projects and Plan Amendments
2.	Lead Agency Name and Address:	San Diego Unified Port District (District) 3165 Pacific Highway San Diego, CA 92101
3.	Contact Person and Phone Number:	Anna Buzaitis, Planning Department (619) 686-7263
4.	Project Location:	National City, generally north of Sweetwater Channel, south of Civic Center Drive, east of the National City Marine Terminal, and west of Paradise Marsh (National Wildlife Refuge) and Interstate 5 See Figure 1.
5.	Project Applicant/Proponent Name and Address:	San Diego Unified Port District 3165 Pacific Highway San Diego, CA 92101 City of National City 1243 National City Boulevard National City, CA 91950-430 Pasha Automotive Services 1309 Bay Marina Drive National City, CA 91950 GB Capital Holdings, LLC 3201 Marina Way National City, CA 91950
6.	Land Use Designation(s):	Various in Port Master Plan: Marine Terminal, Marine-Related Industrial, Park/Plaza, Commercial Recreation, Street, Recreational Boat Berthing; Various in City Planning Documents: Tourist Commercial, Medium Manufacturing, Open Space, and Open Space Reserve
7.	Zoning:	See Port Master Plan Designation for Port Property; City: Open Space, Open Space Reserve, Tourist Commercial, Medium Manufacturing
8.	Description of Project:	See Project Description in Notice of Preparation

9.	Surrounding Land Uses and Setting:	<u>Marina District and Balanced Land Use Plan:</u> North: Industrial uses East: San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit (Paradise Marsh) South: San Diego Bay National Wildlife Refuge and Sweetwater Channel West: National City Marine Terminal and San Diego Bay <u>Tidelands Avenue Closure Project:</u> North: Bay Marina Drive East: Industrial uses South: W 32nd Street West: Industrial uses <u>GB Capital Project:</u> North: Industrial uses East: San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit (Paradise Marsh) South: Sweetwater Channel West: Industrial and recreational uses <u>City Program:</u> North: Industrial East: Interstate 5 South: Bay Marina Drive West: National City Depot <u>Bayshore Bikeway Component:</u> North: Industrial and commercial uses East: Interstate 5 and San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit (Paradise Marsh) South: Commercial and recreational uses and San Diego Bay West: Industrial and recreational uses
10.	Other Public Agencies Whose Approval Is Required:	California Coastal Commission approval of PMPA and City Harbor District Specific Area Plan; City of National City approval of City General Plan Amendments, Land Use Code, Local Coastal Program, and Harbor District Specific Area Plan; California Department of Transportation (Caltrans) approval of utilization of Caltrans property east of the marina, and approval of construction and utilization of Bayshore Bikeway on Caltrans property near Civic Center Drive/Harbor Drive intersection; Metropolitan Transit System (MTS) approval of construction and utilization of (inactive rail) MTS right-of-way south of Bay Marina Drive for Bayshore Bikeway; and potential approval from SANDAG for the Bayshore Bikeway Component.

Environmental Factors Potentially Affected

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

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

Determination

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 to the project 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Anna Buzaitis 12/20/2018

Signature Date

Anna Buzaitis, Program Manager San Diego Unified Port District

Printed Name For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level.
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other California Environmental Quality Act (CEQA) process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

I. Aesthetics	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 on a scenic vista?	☒	☐	☐	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☒	☐
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☒	☐	☐	☐

a. Have a substantial adverse effect on a scenic vista?

Potentially Significant Impact. The Port Master Plan (PMP) provides a framework for the consideration of vista areas that have been recognized as scenic and visually important to the area and the region. The project is in Planning District 5 (National City Bayfront) of the PMP. There is only one scenic vista area identified in Planning District 5, in the western portion of Pepper Park, facing southwest across the Sweetwater Channel and toward the San Diego Bay National Wildlife Refuge. In addition, although not identified in the Port Master Plan, an existing 20-foot-wide view corridor/clear zone is required to be maintained, pursuant to the Pier 32 Marina Coastal Development Permit (District CDP-2006-02), at the existing terminus of Marina Way, looking south through the site towards the Pier 32 Overlook and marina. The north-south public access corridors identified in the Balanced Plan Component and GB Capital Component are proposed to be located along the existing alignment of Marina Way and centered on the existing view corridor at Pier 32 Marina. In addition, the existing alignment of Marina Way is identified as the Harrison Avenue Public Access Corridor in the City's Harbor District Specific Area Plan, and per that plan is a "designated public visual protection area"; therefore, this will be further analyzed in the EIR.

Closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street, and West 28th Street between Tidelands Avenue and Quay Avenue, as well as closure of the southern half of the existing Goesno Place south of West 32nd Street would have no effect on views of the Bay from these locations because views are obstructed by maritime operations, including the cargo storage and related structures, fencing, and landscaping, the latter of which is particularly notable when looking south toward Pepper Park from Tidelands Avenue. As such, closing portions of Tidelands Avenue, West 28th Street, and Goesno Place would not have a substantial impact on a scenic vista. The proposed project would expand Pepper Park by approximately 2.54 acres. The existing scenic vista area is anticipated to be enhanced because a larger park area would be created that would have the same views of the San Diego Bay National Wildlife Refuge and Sweetwater Channel. Because this scenic vista is not oriented toward the project sites, the changes associated with the proposed project would not alter the views from this vista area. Therefore, the proposed project would have no impact on the existing designated scenic vista in Planning District 5.

Other project components would also not have a significant impact on other general (i.e., non-designated) public views. Specifically, the Pasha Road Closures Component of the project, which would close Tidelands Avenue between Bay Marina Drive and West 32nd Street, and West 28th Street between Tidelands Avenue and Quay Avenue, would have no effect on views of the Bay from these locations because views are obstructed by maritime operations, including cargo storage and related structures, fencing, and landscaping. As such, the Pasha Road Closures Component of the project would not result in a substantial impact on a scenic vista.

Aside from the single designated scenic vista in Planning District 5, the next closest designated scenic vista to the project sites is within Planning District 7 (Chula Vista Bayfront), approximately 1.3 miles south of the project sites, looking north towards the project area. Planning District 8 (Silver Strand South) contains a scenic vista approximately 2 miles southwest of the project sites, looking east, with a panoramic view of the Bay, including Chula Vista Bayfront, National City Bayfront, and downtown San Diego. This vista would provide a view of the project sites to the northeast. However, in each case the long-distance views to the proposed project sites would not be significantly affected because, at this distance, the project sites make up only a small part of the overall viewshed and would not cause these views to be blocked or otherwise impair important scenic attractions such as the Bay and adjacent waterfront areas. Therefore, impacts on scenic vistas in nearby Planning Districts 7 and 8 would be less than significant.

Designated scenic vistas on the Coronado Bayfront (Planning District 6) are located approximately 4 miles from the project area and face southeast, toward the project area. It is possible that development associated with the proposed project would be visible from designated scenic vista areas in Planning District 6; however, because the viewshed consists of the Bay as well as a cityscape with many skyscrapers, hotels, and industrial structures, and because the proposed project sites are distant views, implementation of the proposed project would not block these designated views or otherwise alter the existing views such that the views would be degraded. As such, the proposed project's impact on designated scenic vistas in Planning District 6 would be less than significant.

Finally, construction of the proposed project would result in temporary visible construction-related activity within and adjacent to Pepper Park associated with the use of standard construction equipment such as earth-moving equipment, concrete trucks, and forklifts. The direct open-water views of the Sweetwater Channel and the Bay from Pepper Park would be unaffected, regardless of construction activities because construction activities would primarily occur behind (away from) the location of the designated scenic vista. Consequently, construction of the proposed project would not result in a significant impact on a designated scenic vista.

b. Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings along a scenic highway?

Less-than-Significant Impact. The project sites are located in an area that is urban and developed with recreational, commercial, and industrial land uses. There are no scenic rock outcroppings on the project sites. There are trees in Pepper Park and on the perimeter of the City Component portion of the site, but none are designated as scenic resources. Moreover, the proposed project would expand Pepper Park and add trees within the expansion area and within other project areas.

Although no historic buildings are presently within the project sites, the proposed project would potentially relocate the City-owned Granger Hall, a designated historical building, to Pepper Park as part of the Balanced Plan Component.

Views of the project sites would not be available from any of the six designated scenic highways in San Diego County (DOT 2018). The nearest designated scenic highway to the project sites is State Route (SR-) 75, which travels in a north/south direction from Coronado to Imperial Beach. SR-75 is more than 3 miles west of the project sites, across San Diego Bay. At this distance, some brief views of the National City Bayfront may be available on a clear day; however, no clear views of the project sites are available from SR-75. The existing Granger Hall site is approximately 2 miles east of the National City Bayfront and is not visible from SR-75. Other designated scenic highways, such as portions of SR-52, SR-78, SR-94, SR-125, and SR-163, are several miles from the project sites and do not have views of the sites. Impacts to scenic resources along a scenic highway would not occur. Therefore, the proposed project would have a less-than-significant impact on scenic resources. Further discussion in the EIR is not warranted.

c. Substantially degrade the existing visual character or quality of the site and its surroundings?

Potentially Significant Impact. The existing conditions on the project sites include Pepper Park and the National City Aquatic Center, paved parking lots for Pasha related activities, the Pier 32 Marina structures, and disturbed vacant lots. Parcels adjacent to the project sites are developed with a Best Western Hotel, large warehouses including National City Distribution Center (adjacent to Marina Way), the Burlington Northern Santa Fe (BNSF) National City Rail Yard (southwest of Bay Marina Drive/Marina Way), and an Amazon distribution center (adjacent to Bay Marina Drive). Implementation of components such as the Pasha Road Closures and Pasha Rail Improvement would be similar to the industrial character that currently exists, including the cargo storage areas and existing rail lines. The Bayshore Bikeway would maintain the visual character of the area and would blend in with existing conditions because it would mostly require changes in road striping and configuration, with small-scale signage. The Balanced Plan and City Program would reconfigure and redesignate properties in the Marina District and on seven City-owned parcels to allow commercial recreational development, which would change the visual character of the current cargo storage areas and vacant lots to multi-story commercial-recreation buildings (e.g., hotels, retail, and restaurant). The GB Capital Component of the proposed project would introduce new visual elements, such as an RV park, modular cabins, concealed dry boat storage, and up to four hotels, one of which would be up to 11 stories tall. Given that some project components (e.g., the GB Capital Component) would introduce several new visual elements to the National City Marina District, the extent to which the project would degrade the existing visual character or quality of the project site and its surroundings will be evaluated in the EIR. Therefore, this issue area will be discussed further in the EIR.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Potentially Significant Impact. Implementation of the proposed project would potentially create new sources of light and glare, from street, building, or safety lighting. New sources of glare could result if the proposed structures are constructed with highly reflective building material. Additionally, excessive light and impacts to adjacent land uses could result if new lighting is not down shielded. The surrounding land uses contain several sources of light and glare, such as street lighting along the existing roadways in, and adjacent to, the project sites, and building lights associated with the Best Western hotel and adjacent warehouses. In addition, the existing Pasha facility is used as vehicle storage, so parked vehicles are a source of daytime glare in the area (the vehicles' sheet metal and glass reflect the sunlight). Although the proposed project is not anticipated to represent a new source of light and glare that would adversely affect daytime or nighttime views

in the area, especially when considered in context with the surrounding conditions, this issue area will be further discussed in the EIR.

II. Agriculture and Forest Resources	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
In determining whether impacts on 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 Department 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, 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 conflict with 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?	☐	☐	☐	☒

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?

No Impact. The project sites are not used as active agricultural land, nor are they planned or zoned for agricultural uses. According to the Farmland Mapping and Monitoring Program of the California Department of Conservation, the project sites and surrounding area are classified as Urban and

Built-Up Land (DOC 2018), which does not contain any agricultural uses or areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, project approval would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur, and further discussion in the EIR is not warranted.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. As described above in II.a, the proposed project sites and surrounding area are not zoned for agricultural uses. According to the California Department of Conservation's (DOC's) San Diego County Williamson Act Lands Map, the project sites and surrounding area are designated as "Urban and Built-Up Land," and no Williamson Act lands occur on the site or surrounding area (DOC 2013). Therefore, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. No impact would occur, and further discussion in the EIR is not warranted.

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))?

No Impact. As described above under II.a and II.b, the project sites are within District tidelands and are not used or zoned for agricultural use. The project sites do not contain forest lands, as defined in Public Resources Code Section 12220(g), or timberland, as defined by Public Resources Code Section 4526, and are not zoned for forest land or timberland or Timberland Production, as defined by Government Code Section 51104(g). Project approval would not conflict with existing zoning for, or cause rezoning of, forest land or timberland resources; therefore, no impact would occur, and further discussion in the EIR is not warranted.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed above under II.c, the project sites do not contain any forest lands as defined in Public Resources Code Section 12220(g); consequently, the project would not result in the loss or conversion of forest land to a non-forest use. In addition, the project is not located in the vicinity of forest resources. Therefore, no impact would occur, and further discussion in the EIR is not warranted.

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?

No Impact. Implementation of the proposed project would have no impact on agriculture or forestry resources. The project sites are classified as Urban and Built-Up Land, which does not contain any agricultural uses or areas designated for Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, there are no Williamson Act contracts or forest lands in the project vicinity (DOC 2013). The project would not result in conversion of important farmland or other agricultural resources to a non-agricultural use because the project sites and the surrounding area are developed land that is used for industrial purposes or is currently disturbed and vacant. Therefore, the proposed project would not involve changes to the existing environment that, because of its location or nature, would result in the conversion of Farmland to non-agricultural use or forest land to non-forest use. Further discussion in the EIR is not warranted.

III. Air Quality	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When available, the significance criteria established by the applicable air quality management 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. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e. Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

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

Potentially Significant Impact. The San Diego Air Pollution Control District (SDAPCD) is required, pursuant to the federal and state Clean Air Acts, to reduce emissions of criteria pollutants for which the County is in nonattainment (i.e., ozone, particulate matter of 10 microns in diameter or smaller [PM10], and particulate matter of 2.5 microns in diameter or smaller [PM2.5]). The most recent SDAPCD air quality attainment plans are the 2016 Regional Air Quality Strategy (RAQS), 2002 and 2012 ozone maintenance plans, and the 2016 ozone attainment plan. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for ozone, while the 2002 and 2012 maintenance plans and 2016 attainment plan include the SDAPCD's plans and control measures for attaining the National Ambient Air Quality Standards (NAAQS) for ozone. The 2016 RAQS projects future emissions and determines the strategies necessary for the reduction of stationary-source emissions through regulatory controls. The federal Clean Air Act also mandates that the state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. California Air Resources Board (ARB) mobile source emission projections and San Diego Association of Governments (SANDAG) growth projections are based on population and vehicle trends and land use plans developed by local agencies. As such, projects that propose development that is consistent with the growth anticipated by the relevant land use plans that were used in the formulation of the RAQS and SIP would be consistent with the RAQS and SIP. The PMP is the governing land use document for physical development under the jurisdiction of the District; and the City's General Plan, Local Coastal Program, and Harbor District Specific Area Plan (collectively, City Planning Documents) are the governing land use documents for physical development within the City. Therefore, projects that propose development consistent with growth

anticipated by the current PMP and the City Planning Documents are considered consistent with the RAQS and SIP. Moreover, for a project that proposes development that is less dense than anticipated within a general plan (or other governing land use document such as the PMP), that project would likewise be consistent with the RAQS and SIP because emissions would be less than estimated for the existing PMP. If a project proposes development that is greater than that anticipated in the PMP, City Planning Documents and SANDAG's growth projections, the project would not yet be reflected in the RAQS and SIP, and might have a potentially significant impact on air quality because emissions would exceed those estimated for the existing PMP and City Planning Documents. This situation would warrant further analysis to determine if a project would exceed the growth projections used in the RAQS for a specific subregional area. Further evaluation of the project's consistency with the RAQS and SIP will be analyzed in the EIR.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Potentially Significant Impact. As mentioned above, the SDAPCD is required to reduce emissions of pollutants for which the County is in nonattainment (i.e., ozone, PM10, and PM2.5). Emissions related to the proposed project would be attributable to both the construction phase and its operational phase.

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment, construction worker vehicle trips, truck haul and material delivery trips, off-gassing from paving activities, and fugitive dust from demolition and grading activities. Mobile-source criteria pollutant emissions would result from the use of construction equipment and vehicles, and paving operations would result in emissions of volatile organic compounds (VOCs) associated with off-gassing.

Operation of the proposed project has the potential to introduce new uses and change terminal activity, which may create air quality impacts primarily associated with RV park and hotel uses, marina/park uses, vessel activity, car carrier truck trips, rail activity, worker commutes, car on- and off-loading, and minor increases in area sources associated with periodic painting of paved surfaces. As such, the project has the potential to significantly contribute to the violation of an air quality standard or significantly contribute to an existing or projected air quality violation, and this issue will be analyzed in the EIR.

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

Potentially Significant Impact. The San Diego Air Basin (SDAB) is currently in nonattainment for ozone under the NAAQS and for PM10 and PM2.5 under California Ambient Air Quality Standards (CAAQS), which is a result of past and present projects and could be further impeded by the proposed project. Operation of the proposed project has the potential to introduce new uses (e.g., hotels, RV park) and change terminal activity, which may create air quality impacts.

Due to a potential increase in operations associated with the project, the project has the potential to result in a cumulatively considerable net increase of a criteria pollutant for which the SDAB is in nonattainment. Therefore, this issue will be analyzed in the EIR.

d. Expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact. ARB defines sensitive receptors as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may experience greater harm from poor air quality than other members of the population. ARB has identified the following people as the most likely to be affected by air pollution: children younger than 14, the elderly older than 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as "sensitive receptors" (ARB 2005). Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder-care facilities, schools, and parks.

Diesel particulate matter (DPM), which is classified as a carcinogenic toxic air contaminant (TAC) by ARB, is the primary pollutant of concern with regard to health risks to sensitive receptors. Diesel-powered construction equipment and diesel-powered heavy-duty trucks emit DPM.

Construction activities associated with each project component would include diesel equipment activity near existing and proposed new sensitive land uses. Generally, construction activities at a marine terminal are far enough away to not affect nearby uses. However, as activities will be near existing and proposed new uses potentially for an extended time, construction-related TAC emissions will be analyzed in the EIR.

As noted in III.b above, operation of the various project components would change the emissions profile by introducing new emission sources and by changing terminal activity, which may create air quality impacts primarily associated with RV park and hotel uses, marina/park uses, vessel activity, car carrier truck trips, rail activity, worker commutes, car on- and off-loading, and other ancillary uses. Terminal activity is near Pepper Park, while truck and rail that carry cargo to and from the terminal travel through and near residential neighborhoods. Any changes in this activity (e.g., closure of Bay Marina Drive to through-traffic) could expose nearby sensitive receptors to pollutants. Moreover, changes that would affect the layout of the terminal, such as the connector track, and changes that would introduce new land uses and emission sources to the area, such as the GB Capital Component and City Program Component, could potentially conflict with nearby uses that could expose sensitive land uses to new sources of emissions. In addition, the various proposed project components would result in new vehicle traffic, and potentially new traffic patterns (e.g., closure of Bay Marina Drive to through-traffic) that would have the potential to create carbon monoxide (CO) hotspots at nearby roadways and intersections. In addition, the effect of CO levels that would be produced as a result of traffic generated from the proposed project on ambient CO levels will be discussed in the EIR using the traffic data provided by the Transportation Impact Analysis.

The project would potentially expose sensitive receptors to substantial pollutant concentrations, including TACs and carbon monoxide. Construction and operation of the proposed project would result in criteria pollutant and TAC emissions in different quantities than existing conditions. Therefore, this issue will be analyzed in the EIR.

e. Create objectionable odors affecting a substantial number of people?

Potentially Significant Impact. According to ARB's *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, and manufacturing operations (CARB 2005). Odor impacts on residential areas and other

sensitive receptors, such as hospitals, daycare centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas. Potential odor emitters during construction activities include diesel exhaust, asphalt paving, and the use of any architectural coatings to paint paved surfaces. Potential odor emitters during operations would include diesel exhaust from truck and train activity as well as the use of any architectural coatings to periodically paint paved surfaces. However, the sources of odor impacts would be limited to the marina uses, circulation routes, parking areas, and areas immediately adjacent to terminal operations. This issue will be analyzed in the EIR.

IV. 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
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?	☒	☐	☐	☐

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?

Potentially Significant Impact. The majority of the project sites are located within disturbed land that has previously been graded. Parcel B6, which is part of the Balanced Plan and the GB Capital Component, is located adjacent to the San Diego Bay National Wildlife Refuge and therefore a wildlife survey was conducted to identify special-status species that are known. Two special-status plant species were detected within the survey area: estuary seablite (*Suaeda esteroa*) and beach goldenaster (*Heterotheca sessiliflora* ssp. *Sessiliflora*). Three special-status wildlife species

were detected within the survey area: osprey (*Pandion haliaetus*), wandering skipper (*Panoquina errans*), and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*). Construction, demolition, and operational activities associated with the proposed project could result in a significant impact on the special-status plant and wildlife species.

Disturbed habitat covers much of the survey area as the area has been previously graded and is therefore heavily disturbed. The area is dominated by the invasive plant, stinknet (*Oncosiphon piluliferum*), with emergent broom baccharis (*Baccharis sarothroides*), which is native. However, these species occur in disturbed areas on the site and are not part of a native, functioning habitat; thus, the area is not considered to be sensitive habitat. Moreover, little-to-no vegetation is present on the City-owned parcels as they appear to have been graded. However, additional investigation into the existing conditions of Parcel B6, the seven City Parcels, and part of the proposed alignment of the Bayshore Bikeway and surrounding areas will be conducted, and the results of the analysis will be included in the EIR.

In-water activities would occur as part of the GB Capital Component. These activities could result in noise or vibration impacts during the construction phase, and additional overwater shading may occur as well. A marine biological resource assessment will be completed on the GB Capital Component of the project to determine if there will be in-water marine biological impacts on eelgrass, sensitive species, and Essential Fish Habitat; that assessment will be included in the EIR. Moreover, any potential changes to small recreation vessel access (associated with the GB Capital Component and the potential change in use restrictions and allowable uses at the National City Aquatic Center) to the areas around the San Diego Bay Wildlife Refuge would be analyzed to determine if a potentially significant impact would occur.

The proposed project includes a connector rail track as part of the Pasha Rail Improvement Component. This component would increase efficiency for Pasha's operations at the National City Marine Terminal (NCMT) by reducing maneuvering and train build times. It would not, however, increase throughput because throughput is a function of land availability, vehicle dwell time, and accessibility to empty railcars. In terms of land availability, the connector track would not increase available land, but under the Balanced Plan there would be a net loss of land available for Pasha. Regarding vehicle dwell time, the connector track would not necessarily decrease dwell time because dwell time is largely dependent on the vehicle manufacturer and the dealer (i.e., when the dealer is able to take possession of the vehicle). In terms of accessibility to empty rail cars, the connector track could theoretically increase the accessibility of empty railcars by providing a more direct link to the BNSF National City Yard; however, the availability of the empty railcars would still be dependent on whether BNSF has empty railcars and provides them to Pasha. Still, changes in train operations (not necessarily just additional trains) or location could result in an impact in the area near a Wildlife Refuge. Therefore, this issue will be further analyzed in the EIR.

Because development of vacant parcels, in-water work, the Bayshore Bikeway, and changes in train operations may result in impacts on sensitive species, a more detailed analysis will be provided in the EIR.

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

Potentially Significant Impact. Riparian habitat is composed of vegetation and physical features normally found on stream banks and flood plains and is directly associated with streams, lakes, or other bodies of water.

The proposed project includes construction on Parcel B6, which is currently undeveloped, and also construction and operation of the Bayshore Bikeway in the area east and north of Parcel B6. These areas of the proposed project are adjacent to the San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit. The biological survey conducted on this parcel and the area south of the existing hotel (Dudek 2017) identified Diegan coastal sage scrub, which is a special-status plant community, as well as southern coastal salt marsh and saltpan/mudflats. The EIR would include further evaluation of the potential impacts on sensitive-species plants and wildlife throughout the project sites, including Parcel B6.

The GB Capital Component of the proposed project may result in marine impacts related to the proposed in-water work. A Marine Biological Resource assessment will be conducted to evaluate the proposed project's effect on any riparian habitat or other sensitive natural community (including eelgrass) identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. A full analysis will be provided in the EIR to determine if a significant impact would occur.

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

Potentially Significant Impact. The San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit, located along the eastern boundary of the proposed project sites, is classified as wetlands as defined by Section 404 of the Clean Water Act. Proposed project components, including the potential alignments of the Bayshore Bikeway and the undeveloped Parcel B6 of the GB Capital Component site, may result in potential edge effects on the San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit. The proposed project could potentially have a substantial adverse effect on federally protected wetlands. Therefore, this issue will be discussed further in the EIR.

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?

Less-than-Significant Impact. The project sites consist primarily of developed land and are not wildlife corridors or native wildlife nursery sites. The proposed project would not interfere with movement of wildlife and would not affect wildlife corridors. The building height(s) of the hotel(s) have the potential to impact migratory birds and the Pacific Flyway, but given that the project is being proposed in a heavily developed area, migrating birds would navigate around the structure(s) as they do around other buildings in the downtown. In addition, it would not be within the boundaries of a native wildlife nursery and would not otherwise interfere with the use of native wildlife nursery sites. Therefore, impacts would be less than significant, and further discussion in the EIR is not warranted.

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

Potentially Significant Impact. The applicable local land use plans, policies, ordinances, or regulations of the District, adopted for the purpose of protecting biological resources, are the Port

Master Plan, San Diego Unified Port District Code, and the District's Integrated National Resources Management Plan (INRMP). The District and the U.S. Navy Southwest Division maintain and implement the INRMP. Additionally, the District has established goals to protect, preserve, and enhance natural resources in San Diego Bay in Section II of the PMP, *Planning Goals* (Goal XI). The project sites are not located in areas identified for conservation purposes by the District. (Conservation areas are located in Planning Districts 7, 8, and 9.) However, the project sites are located next to the San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit, as previously mentioned, and may result in conflicts with goals or policies intended to protect resources within this refuge area. In addition, the City Program (Development and Plan Amendments Components) site would be subject to the National City General Plan, Land Use Code, Local Coastal Program, and Harbor District Specific Area Plan policies and implementation guidelines regarding Conservation and Open Space intended to protect biological resources in the City. Consequently, this issue will be further discussed in the EIR.

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?

Potentially Significant Impact. As previously mentioned, the District and the U.S. Navy Southwest Division maintain the INRMP, which catalogues the plant and animal species around the Bay and identifies habitat types to ensure the long-term health, recovery, and protection of San Diego Bay's ecosystem in concert with economic, Naval, recreational, navigational, and fisheries needs. Development of the proposed project will be reviewed with the goals and intent of the INRMP and a more detailed analysis will be provided in the EIR. The San Diego Bay National Wildlife Refuge, Sweetwater March Unit, is managed by the U.S. Fish and Wildlife Service and management of the refuge is guided by the Comprehensive Conservation Plan (CCP). The CCP provides the following guiding principles for the Sweetwater Marsh Unit:

> Goal 1: Protect, manage, enhance, and restore coastal wetland and upland habitats to benefit native fish, wildlife, and plant species within the Sweetwater Marsh Unit.
>
> Goal 2: Support recovery and protection efforts for the federally and state listed threatened and endangered species and species of concern that occur within the Sweetwater Marsh Unit.
>
> Goal 3: Protect and restore the environmental health of the Refuge's coastal salt marsh and upland habitats by making contaminants remediation a priority for Refuge lands, adjacent properties, and upstream developments.
>
> Goal 4: Provide outstanding environmental education programs for all ages in partnership with the Chula Vista Nature Center and other public agencies and non-governmental organizations.
>
> Goal 5: Provide quality wildlife-dependent recreation, interpretation, and outreach opportunities to enhance public appreciation, understanding, and enjoyment of the Refuge's biological and cultural resources.

The Bayshore Bikeway component of the proposed project would be subject to the goals established for the Sweetwater Marsh in the CCP. The Balanced Plan Component of the proposed project would help reach Goal 5 through the expanded use of the aquatic center element of the project.

The City Program ((Development and Plan Amendments Components) site would be subject to the National City General Plan, Land Use Code, Local Coastal Program, and Harbor District Specific Area Plan policies and implementation guidelines regarding Conservation and Open Space intended to

protect biological resources in the City. Based on the location and type of project that could be constructed on the City Program site, the proposed project could result in a conflict with adopted habitat conservation plans, and this issue will be discussed further in the EIR.

V. 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 as defined in Section 15064.5?	☒	☐	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☒	☐	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Potentially Significant Impact. The proposed project involves the potential relocation of Granger Hall to Pepper Park. Granger Hall is listed in the National Register of Historical Places (NRHP). A resource listed in the NRHP is automatically listed in the California Register of Historical Resources (CRHR). As such, Granger Hall qualifies as a historical resource per State CEQA Guidelines Section 15064.5. The existing NRHP registration form prepared for Granger Hall specifies "areas of significance" that can generally be translated into the more recent NRHP Listing Criteria. It appears that Criterion C would likely apply to Granger Hall, while Criteria A and B would not. A technical memorandum will be prepared to update the existing documentation and document the current condition of the building. The technical memorandum will include an integrity analysis and assessment of the building's character-defining features, and will specify the current applicable Listing Criteria codified by the National Park Service since the building was listed in the mid-1970s.

Two other significant historical resources are located within the project area. One is the National City Santa Fe Depot, which is listed in the NRHP under Criteria A and C. As a property listed in the NRHP, the National City Santa Fe Depot qualifies as a historical resource per State CEQA Guidelines Section 15064.5. Additionally, a segment of the Coronado Belt Line (CA-SDI-13073) is located within a portion of the proposed project's Bayshore Bikeway component, along the west side of the San Diego National Wildlife Refuge, Sweetwater Marsh Unit. A segment of this resource located outside of National City has been listed on a local register of historical resources. The segment of the Coronado Belt Line located within the project area will be evaluated as part of the cultural resources technical study to determine if it qualifies as a historical resource under CEQA, and addressed in the EIR.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Potentially Significant Impact. State CEQA Guidelines Section 15064.5 defines an archaeological resource as any artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that the resource:

- Contains information, with demonstrable public interest in that information, needed to answer important scientific research questions; or
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

A record search was conducted by the South Coastal Information Center (SCIC) on April 24, 2017, for the District's Port Master Plan Update, which is currently underway. The area encompassed by that record search includes the current project boundary and an approximately quarter-mile buffer. The SCIC maintains the California Historical Resource Information System database for San Diego County and keeps a record of all reported cultural resource studies and findings within San Diego County. The record search revealed that no previously recorded resources are located within the proposed project area; however, two cultural resources (CA-SDI-7454 and CA-SDI-13073) are located adjacent to and within the project area. CA-SDI-7454, mapped as intersecting with Bayshore Bikeway alignments Route 1, 2, and 3, was recorded as a shell midden in 1979; an update in 2002 failed to relocate the site. CA-SDI-13073 consists of the Coronado Belt Line Railroad. As noted above, a segment of this resource is located within a portion of the proposed project's Bayshore Bikeway component, and will be addressed in the EIR.

In addition to the record search, a review of historic maps and aerials was conducted. ICF archaeologists collected historic shoreline data of the project area by obtaining digitized and georeferenced historical U.S. Coast and Geodetic Survey maps (Alden 1857). For Parcel B6, the historic shoreline data indicated that the area west of Marina Way consisted of San Diego Bay waters prior to 1857. A review of a 1904 San Diego United Sates Geological Survey (USGS) topographic map indicated that the area east of Marina Way consisted of what is now the San Diego Bay National Wildlife Refuge, Sweetwater Marsh Unit. Historic aerials (NETR 2017 – photographs from 1953, 1964, 1966, 1980) show extensive changes to Parcel B6 in the form of import of fill and redirection and channelization of Sweetwater Channel. For this reason, there does not appear to be any possibility that archaeological deposits exist anywhere near the surface of Parcel B6 today.

According to historic maps (USGS 1904), the seven parcels within the City Program were historically located above the high tide mark and show urban development in the early 20th century. The parcels are currently vacant and given the age of development in this area, potential for historic cultural resources cannot be ruled out.

Project-related activities involving ground disturbance could cause a substantial adverse change in the significance of an archaeological or historic resource. Further discussion will be provided in the EIR.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Potentially Significant Impact. The San Diego Natural History Museum conducted a paleontological record search on May 1, 2017, for the District's Port Master Plan Update, which encompasses Parcel B6. The search revealed that Parcel B6 consists of artificial fill and Holocene marine deposits. The museum assigned a paleontological resource sensitivity rank to each geologic unit following City of San Diego and County of San Diego Guidelines (City of San Diego 2007, County of San Diego 2009). Artificial fill is assigned no (zero) paleontological sensitivity because artificial fill

has been previously disturbed and may have been imported to the site, and any contained fossils have lost their contextual data and are thus of little scientific value. Holocene marine deposits are generally less than 10,000 years old and are assigned a low paleontological sensitivity based on their young geologic age and lack of known fossil localities.

The seven City Program parcels were not included in the Port Master Plan Update's paleontological record search; therefore, a paleontological records search from the San Diego Natural History Museum will be obtained for the proposed project. Preliminary research indicates that the seven City Program parcels are underlain by Old Paralic Deposits, which is assigned a high paleontological sensitivity rating for the diverse and well-preserved fossils of marine invertebrates and marine vertebrates that have been recovered from these deposits.

Construction activity, including ground excavation, associated with the proposed project could potentially destroy a unique paleontological resource or site or unique geologic feature. Further discussion will be provided in the EIR.

d. Disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant Impact. The proposed project is not a formal cemetery and is not near a formal cemetery. The proposed project and surrounding area are either fully developed or in active waters, and there is no record of human remains being identified during development of the area. The site is not known to be on a burial ground. For these reasons, the potential for human remains to be present at the project site is extremely low. However, if human remains are discovered, State Health and Safety Code Section 7050.5 requires that further disturbance and activities will cease in any area suspected to overlie remains and that the County Coroner be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, who will then notify the Most Likely Descendant. Further provisions of PRC Section 5097.98 are to be followed as applicable. Therefore, through compliance with the existing regulations, the construction and operation of the proposed project would not disturb any human remains, including those interred outside of formal cemeteries. Therefore, impacts would be less than significant, and further discussion in the EIR is not warranted.

VI. Geology and Soils	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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.	☐	☐	☒	☐
2. Strong seismic ground shaking?	☐	☐	☒	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
4. 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 an onsite or offsite 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 risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

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

1. 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 proposed project would not expose people or structures to potential substantial adverse effects from the rupture of a known earthquake fault, because no active faults are identified within the project sites. According to the California Geological Survey

(California Department of Conservation 2010). Because there are no faults within the project sites, and ground disturbance activities associated with the proposed project are not likely to influence the potential for fault rupturing, construction and operation of the proposed project would not exacerbate the existing fault conditions. The project would not exacerbate the potential of a fault rupture, and further discussion in the EIR is not warranted.

2. Strong seismic ground shaking?

Less-than-Significant Impact. The project sites are in an area that is susceptible to seismic ground shaking. The closest fault line to the project sites, the Rose Canyon fault zone, is approximately 0.45 mile west, in the San Diego Bay (California Department of Conservation 2010). That fault line, Elsinore fault, is approximately 40 miles to the northeast. Additionally, the project sites are in Seismic Zone 4, which is a designation used to denote the areas with the highest risk to earthquake ground motion (California Seismic Safety Commission 2005).

The project sites are in a medium-low Probabilistic Peak Ground Acceleration Area, which correlates to how hard the earth shakes in a given area (City of National City 2011). The project sites are underlain by Soft Soil types, categorized by the National Earthquake Hazards Reduction Program as soils that may amplify the ground shaking effects of earthquakes. Consequently, a seismic event within the Rose Canyon fault zone could cause significant ground shaking on the project site; however, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code. More importantly for purposes of CEQA, the proposed project would not include any characteristics that might exacerbate the potential for strong seismic ground shaking. As such, less-than-significant impacts from the project related to its potential to exacerbate strong seismic groundshaking in the area would occur. Further discussion in the EIR is not warranted.

3. Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. According to the U.S. Department of Agriculture (USDA) Web Soil Survey; the project sites are underlain by three types of soils: Huerhuero-Urban land complex, Made land, and Tidal flats. Tidal flats are hydric soils, which are soils that are saturated or have wetland characteristics, and can increase the potential of liquefaction. The Tidal flats are primarily associated with the Sweetwater Marsh Unit and only occur on the eastern border of the project sites directly adjacent to the marsh, where the Bayshore Bikeway project component is proposed (USDA 2018). The project sites are mostly underlain by either Made land (fill) or Huerhuero-Urban land complex, which have a low liquefaction risk. Moreover, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code. Because the project would be engineered to eliminate the low liquefaction hazard, and because the project would not have the potential to exacerbate the potential for liquefaction to occur, less-than-significant impacts associated with liquefaction or other seismic-related ground failure would occur, and further discussion in the EIR is not warranted.

4. Landslides?

No Impact. Implementation of the proposed project would not expose people or structures to a substantial adverse effect from landslides. Landslide risk is determined by steep slopes that have 25% or greater incline, soil type, and soil-slip susceptibility, as defined by the USGS. The northeastern portion of Parcel B6 (of the Balanced Plan) slopes towards the San Diego Bay National

Wildlife Refuge, and Sweetwater Marsh Unit; however, the sloped area is part of the 200-foot setback from the refuge boundary, so no buildings would be located there. Route 3 of the Bayshore Bikeway Component is proposed to be located in this sloped area; however, it would be sited in locations that do not exceed a 25% slope. Therefore, the proposed project would not exacerbate the potential of a landslide occurring, and impacts would not be significant. Further discussion in the EIR is not warranted.

b. Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. Erosion is a condition that could adversely affect development on any site. Construction activities could exacerbate erosion conditions by exposing soil and adding water to the soil, either from irrigation or runoff from new impervious surfaces. The General Construction Permit, which was adopted by the State Water Resources Control Board as Water Quality Order 2009-0009-DWQ as amended by 2010-0014-DWQ, and Order 2012-006-DWQ, is required for soil disturbance activities that would be greater than 1 acre. It is anticipated that all components of the proposed project would involve construction activities with soil disturbance over 1 acre, and therefore each would be subject to the General Construction Permit. As such, each project component with soil disturbance over 1 acre is required to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP will include Best Management Practices (BMPs), such as sediment and erosion control measures, to prevent pollutants from leaving the sites that would be employed during construction. Furthermore, the project components would need to comply with the City's grading ordinance.

In addition, consistent with the District's Jurisdictional Runoff Management Program (JRMP) (pursuant to State Water Resources Control Board Order No. R9-2013-0001, as amended by Order No. R9-2015-0001 and R9-2015-0100 [NPDES Permit #CAS0109266, Municipal Permit]), the components of the proposed project that are located within District jurisdiction would be designed with BMPs consistent with the District's *BMP Design Manual*, which requires the use of low-impact development BMPs, as well as source control and treatment control BMPs (District 2016). Future development associated with the City Program (Development and Plan Amendments Components) would be designed with BMPs consistent with the City's JRMP and the City's *BMP Design Manual*, which requires the use of low-impact development BMPs, as well as source control and treatment control BMPs (City 2018). Therefore, both construction and operational impacts related to soil erosion or loss of topsoil would be less than significant. Further discussion in the EIR is not warranted.

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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-Than-Significant Impact. Bay deposits that underlie the project sites could be unstable because of their liquefaction potential. As discussed under VI.a.4, the project sites do not contain slopes exceeding a 25% grade, and they would not be susceptible to on- or offsite landslides. The project sites are mostly underlain by either Made land (fill) or Huerhuero-Urban land complex, which have a low liquefaction risk. Moreover, design and construction of the proposed project would comply with all seismic-safety development requirements, including Title 24 standards of the current California Building Code, and the National City Municipal Code, Section 15.70 (grading ordinance) (City of National City 2018). Because the project would be engineered to eliminate the

low liquefaction hazard and because the project would not have the potential to exacerbate the potential for liquefaction to occur, no impact associated with liquefaction or other seismic-related ground failure would occur. Due to these onsite conditions and compliance with the applicable regulations, impacts would be less than significant because the proposed project would not exacerbate existing unstable conditions. Further discussion is not warranted in the EIR.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less-Than-Significant Impact. Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a significant increase in volume with an increase in water content as well as a significant decrease in volume with a decrease in water content. Changes in the water content of highly expansive soils can result in severe distress for structures constructed on or against the soils. Underlying soils found on site are partially composed of clays and, as such, could be subject to expansion. Huerhuero-Urban land complex (2 to 9% slope) has a high shrink-swell behavior, Made land has variable shrink-swell behavior, and Tidal flats have a high shrink-swell behavior (USDA 1973). Should any soil failure occur, risks to life or property associated with the proposed project may increase due to the construction of new structures, which would increase the number of people within the project sites. Construction of the proposed project would be subject to applicable ordinances of the current California Building Code (California Code of Regulations Title 24), and expansive soils would be removed and replaced with engineered soil. Further discussion is not warranted in the EIR.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No Impact. No septic tanks or alternative wastewater disposal systems are proposed; therefore, no impact would occur. Further discussion in the EIR is not warranted.

VII. 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?	☒	☐	☐	☐

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

Potentially Significant Impact. Construction and operation of the proposed project would result in greenhouse gas (GHG) emissions in greater quantities than existing conditions. Construction of the project's various components, including but not limited to, demolition of structures and roadways, installation of the connector track, changes to Pepper Park, and construction of new buildings or structures, would generate GHG emissions. Once constructed, the proposed project would change vehicle traffic patterns and quantities in the project area due to the expanded park, park/plaza, commercial recreational, and maritime uses, all of which would generate GHG emissions.

Emissions sources such as vessels, trucks, passenger vans, and electricity and water use that may increase with the proposed project will be analyzed in the EIR. This potential increase in GHG emissions could potentially, either directly or indirectly, have a significant impact on the environment by exceeding established thresholds for GHG emissions. In addition, the EIR will consider the physical effects of climate change on the proposed project; this includes conducting a sea level rise analysis. The sea level rise analysis will be conducted using best available science, which as of publication of this NOP is the Ocean Protection Council's State of California Sea Level Rise Guidance: 2018 Update (OPC 2018 Update). More specifically, for sea level rise analyses, the District currently uses the following short-, medium-, and long-term sea level rise projections/scenarios (both with and without storm events) from the OPC 2018 Update: high emissions (RFP 8.5) for the 1-in-20 change or 5% probability for years 2030 (0.7 feet sea level rise), 2050 (1.4 feet sea level rise), and 2100 (4.5 feet sea level rise), and also the median or 50% probability for year 2100 (2.6 feet sea level rise). The analysis will identify any areas of potential impacts due to potential future increases in mean sea level rise (temporary coastal flooding, and permanent inundation) and if the project exacerbates potential impacts on the environment resulting from sea level rise or associated events (e.g., coastal flooding, wave overtopping, erosion, etc.).

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact. The District has enacted a variety of policies and plans to reduce GHG emissions as part of its Climate Action Plan, including the implementation of shore power, equipment and truck replacement/retrofits, vessel speed reductions, and the Clean Truck Program.

In addition, the City adopted a Climate Action Plan in 2011. The project would increase GHG emissions and may therefore conflict with or impede implementation of plans, policies, or regulations that were adopted to reduce GHG emissions. Therefore, this issue will be analyzed in the EIR.

VIII. 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 involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐	☐
d. Be located on a site that 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. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

a. 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 proposed project would be required to comply with federal, state, and local regulations for the routine transport, use, and disposal of any hazardous materials. These regulations include the Resource Conservation and Recovery Act (RCRA), U.S. Department of

Transportation (DOT) Hazardous Materials Regulations (Code of Federal Regulations [CFR] Title 49), California Health and Safety Code, and San Diego County Code, Title 6, Division 8, in combination with legally required construction BMPs implemented from the SWPPP (under the General Construction Permit). Moreover, the proposed project would only include common hazardous materials such as fuels, oils, and solvents in relatively small quantities associated with an increase in recreational marine vessels, movements associated with rail cars, and the construction and operation of commercial recreational uses such as the proposed hotels. Any accidental release of these materials due to spills or leaks would be cleaned up in the normal course of business, consistent with the above-mentioned regulations. Therefore, impacts associated with the potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant, and further discussion in the EIR is not warranted.

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?

Potentially Significant Impact. See the response to VIII.a. Construction-related hazardous materials would be used during project construction, including fuel, solvents, paints, oils, and grease. Any of these substances could be released during construction activities. However, compliance with federal, state, and local regulations in combination with legally required construction BMPs implemented from the SWPPP (under the General Construction Permit) would ensure that all hazardous materials would be used, stored, and disposed of properly, which would minimize potential impacts related to a hazardous materials release during the construction phase of the project. Therefore, construction-related impacts associated with the creation of a significant hazard will not be analyzed further in the EIR.

Searches conducted using the State Water Resources Control Board (SWRCB) website (GeoTracker) and the California Department of Toxic Substances Control database (EnviroStor) online records, along with documents obtained from the County of San Diego Department of Environmental Health, indicate that several closed hazardous materials sites are located near the proposed project. In addition, Geotracker identified one open case adjacent and east of the proposed Tidelands Avenue Closures component of the proposed project. The active Cleanup Program Site is identified as *Bayshore Bikeway Segments 4B & 5* and was opened as of February 28, 2017 and will need to be further analyzed in the EIR (SWRCB 2018). It is possible that construction activities (i.e., grading and excavation) related to the project may encounter residual soil contamination given the location of these former contamination sites as well as the open Cleanup Program Site mentioned above. In addition, previous record searches indicated the National City Dump (or the Davies Dump) operated as a burn dump in the 1940s and 1950s in the project vicinity (District 2016). Construction activities at the proposed project sites could have the potential to disturb buried burn ash. This issue will be further analyzed in the EIR.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Potentially Significant Impact. Project construction would require the use of typical materials associated with construction activities (e.g., diesel fuel, gasoline, oil, hydraulic fluid, asphalt and binders, and paint). Any hazardous materials used during project construction would be

transported, used, and stored in accordance with state and federal regulations, as described above under VIII.b, regarding hazardous materials.

Hotel and retail operations proposed by the project would also use solvents, cleaning agents, paints, pesticides, fuels, propane, antifreeze, oil filters, used oil, mercury lamps, batteries, and aerosol cans. These hazardous material products are generally used in small amounts, and any potential hazardous releases would be limited in scope and spill area and would be cleaned up soon after they occur as required by existing regulations, including the RCRA and the NPDES permit. Rail operations would be similar to existing operations and would comply with applicable laws and regulations.

The nearest school is Kimball Elementary School, approximately 0.25 mile east of the Bayshore Bikeway alignment site. Because the project is located within 0.25 mile of an existing school, this is considered to be a potentially significant impact, and further discussion will be provided in the EIR.

Therefore, project construction and operations would result in a less-than-significant impact related to hazards to the public or to the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials. Further discussion in the EIR is not warranted.

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

Potentially Significant Impact. See the response to VIII.b. Given how close the open Cleanup Program Site is to the project sites, the EIR will provide a further analysis of the potential for the proposed project to be located on a listed hazardous materials site. Specifically, the demolition and construction activities associated with the Pasha Road Closures Component along Tidelands Avenue could disturb contaminated soil. This is considered to be a potentially significant impact, and further discussion will be provided in the EIR.

e. For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The project sites are not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan. The San Diego International Airport is more than 5 miles to the north of the project sites. As such, implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. No impact would occur, and further discussion in the EIR is not warranted.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The proposed project area is not within the vicinity of a private airstrip. The closest non-public airstrip facilities to the project sites are Naval Air Station (NAS) North Island and Naval Outlying Landing Field (NOLF) Imperial Beach. Both are approximately 5.5 miles from the project, with NAS North Island being closest to the north end of the project area and NOLF Imperial Beach being closest to the south end. As such, implementation of the proposed project would not result in a safety hazard for people residing or working in the project area. No impact would occur, and further discussion in the EIR is not warranted.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Potentially Significant Impact. Implementation of the proposed project could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As part of the proposed project, closure of Tidelands Avenue between Bay Marina Drive on the north and West 32nd Street on the south, and West 28th Street between Tidelands Avenue and Quay Avenue, and the potential narrowing or closure (to thru-traffic) of Bay Marina Drive at Marina Way may affect an adopted emergency response plan or emergency evacuation plan. The proposed project would be required to comply with applicable requirements set forth by the County of San Diego Office of Emergency Services' Operational Area Emergency Plan, the National City Police Department, and the National City Fire Department. The Office of Emergency Services coordinates emergency response at the local level in the event of a disaster, including fires. Emergency response coordination is facilitated by the Operational Area Emergency Operations Center and responding agencies to the proposed project sites, the Southern Division of the National City Police Department, National City Fire Department Station No. 34, and San Diego Harbor Police Department. Because the project would change access in the area, further analysis will be provided in the EIR.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The project sites are not within or adjacent to an area that has been identified as a wildland fire hazard area. According to the Very High Fire Hazard Severity Zone maps prepared by the California Department of Forestry and Fire Protection (2009), the proposed project is not within a High Fire Risk Area. Furthermore, the proposed project area is neither adjacent to nor intermixed with wildlands. No impacts would occur, and further discussion in the EIR is not warranted.

IX. 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?	☒	☐	☐	☐
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite or offsite?	☐	☐	☒	☐
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?	☐	☐	☒	☐
e.	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
f.	Otherwise substantially degrade water quality?	☒	☐	☐	☐
g.	Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j.	Contribute to inundation by seiche, tsunami, or mudflow?	☒	☐	☐	☐

a. Violate any water quality standards or waste discharge requirements?

Potentially Significant Impact. Construction activities associated with the various physical components of the proposed project could potentially violate water quality standards or waste discharge requirements. Construction activities such as demolition, grading and excavation, filling and compaction, rail improvements, marina expansion, and construction of above-ground facilities and buildings could degrade water quality by increasing polluted stormwater runoff. With heavy rain or wind conditions, during excavation or other ground-disturbing activities, erosion and sediment transport from the project sites and on- and offsite staging areas could increase. Stormwater runoff (or wind) could carry the exposed or eroded sediments to the storm drain system or directly into the Bay. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported to the Bay, which could contribute to water quality degradation. Delivery, handling, and storage of construction materials and wastes, as well as the use of construction equipment, could also contaminate stormwater and affect water quality. As such, construction activities could violate water quality standards or waste discharge requirements.

In sum, impacts from construction could include polluted stormwater runoff, erosion and sediment transport, hazardous materials contamination, or physical changes to the aquatic ecosystem. Accordingly, construction impacts on water quality would be potentially significant and could lead to exceedance of water quality objectives or criteria. This issue area will be analyzed in the EIR.

Operation of the proposed project would increase impervious surface area and change land uses. The proposed project would develop existing undeveloped parcels (part of the GB Capital Component, and part of the City Program – Development Component) that would increase the impervious cover on the project sites, thus changing land use and increase the amount of pollutants generated on site that could discharge into the Bay during a storm event. Adding commercial and industrial uses could generate additional pollutants that could impair water quality if not treated prior to discharge. Typical pollutants associated with commercial and industrial land uses include but are not limited to suspended solids, pathogens, nutrients, pesticides, organic compounds, metals, trash/debris, oxygen-demanding substances, and oil and grease. The result may (further) impair receiving waters. Therefore, the proposed project could result in potentially significant impacts related to a violation of water quality standards or waste discharge requirements. This issue area will be analyzed in the EIR.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Less-than-Significant Impact. The project sites are located within the Sweetwater Groundwater Basin. The primary recharge of the Sweetwater Valley Groundwater Basin is derived from seasonal runoff from precipitation in the upper reaches of the basin and from the Sweetwater Reservoir, including subsurface flows. Although the proposed project would increase the impervious surface area by developing some disturbed but undeveloped parcels, groundwater recharge would not be reduced by the proposed project. Groundwater beneath the project sites is largely seawater. While the proposed project would replace a portion of the existing landscaped pervious surface that contributes to groundwater recharge, because the groundwater is mainly seawater infiltrating the soils under the project sites, the project would not interfere substantially with groundwater

recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The proposed project does not include any wells to pump groundwater. Impacts related to substantial depletion of groundwater supplies and recharge would be less than significant, and further discussion in the EIR is not warranted.

Short-term dewatering may be necessary during construction of proposed foundations below 10 feet. Discharge of groundwater into storm drains and receiving waters has the potential to significantly affect water quality. However, the proposed project would be required to comply with dewatering requirements imposed by the San Diego Regional Water Quality Control Board general waste discharge requirements for discharges from temporary groundwater extraction and similar waste discharges to San Diego Bay (Order No. R9-2015-0013). The proposed project would be required to maintain compliance with the effluent limitations applicable to the receiving water, as specified in Order No. R9-2015-0013 (refer to Table 8 of the order). The permit requires permittees to conduct monitoring of dewatering discharges and adhere to effluent and receiving water limitations contained within the permit so that water quality of surface waters is protected. Compliance with the applicable dewatering permit would further ensure that the impacts of these discharges would be less than significant, and further discussion in the EIR is not warranted.

Groundwater at the project sites is not used for drinking water and consequently would not impact drinking water. Impacts related to lowering the groundwater table and groundwater recharge would be less than significant, and further discussion in the EIR is not warranted.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on site or off site?

Less-than-Significant Impact. Implementation of the proposed project would not substantially alter the existing drainage pattern of the project sites, including through the alteration of the course of a stream or river. The proposed project would continue to discharge directly to the San Diego Bay and would not result in erosion or siltation by nature of the receiving Bay waters (i.e., not a typical channel with bed and banks subject to erosion). Therefore, the proposed project does not include changes to the existing storm drain system that would result in substantial erosion or siltation on site or off site. However, stormwater discharges from the site would be treated in accordance with the District's or City's JRMP and directed to the storm drain system and discharge to San Diego Bay. Therefore, downstream erosion would not occur. Impacts related to substantial erosion or siltation on site or off site would be less than significant. However, this issue area will be evaluated further in the EIR to identify compliance methods with the District's or City's JRMP.

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?

Less-than-Significant Impact. The existing drainage patterns would not be substantially altered; no streams or rivers exist on site. The proposed project would develop some existing undeveloped parcels, which would increase the rate or amount of stormwater runoff due to the additional impervious surface area. The increased runoff would be managed by the inclusion of new stormwater facilities in compliance with the District's or City's JRMP; the stormwater would continue to discharge directly to the San Diego Bay and would not result in flooding by nature of the receiving Bay waters. Therefore, potential for flooding on site or off site is low. However, this issue area will be evaluated further in the EIR to identify compliance with the District's or City's JRMP.

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

Potentially Significant Impact. The proposed project would not result in a significant increase in runoff water compared to the existing conditions because the project sites are mostly developed or graded. However, the proposed project would increase impervious surfaces associated with development of the undeveloped parcels in the GB Capital Component and the City Program – Development Component. Those new land uses, compared to existing conditions, may result in additional sources of polluted runoff during construction and operational activities, as discussed under IX.a. Therefore, this issue will be further analyzed in the EIR.

f. Otherwise substantially degrade water quality?

Potentially Significant Impact. As described under IX.a and IX.e, the proposed project would result in potentially significant short-term construction and long-term operational impacts on water quality. Therefore, impacts could be potentially significant, and this issue area will be further analyzed in the EIR.

g. Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. No housing is proposed on site, nor are the sites on a 100-year floodplain. The Federal Emergency Management Agency (FEMA) delineates floodplains throughout the nation and presents the data on Flood Insurance Rate Maps, which illustrate that the proposed project sites are outside of the 100-year floodplain (FEMA 2014). Therefore, no related impacts would occur, and further discussion in the EIR is not warranted.

h. Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. As indicated above under IX.g, the proposed project sites are not within a 100-year floodplain. Therefore, no impact would occur, and further discussion in the EIR is not warranted.

i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less-than-Significant Impact. Dam failures are rated as a low-probability, high-loss event. Only two major dam failures have ever been recorded in San Diego County. These occurred in 1916 and were caused by a flood event (County of San Diego 2010). The project sites are downstream of the Sweetwater Dam, which is approximately 6 miles to the east. The Sweetwater Dam was given a condition assessment of "fair" in 2017 by the California Natural Resources Agency, Department of Water Resources, Division of Safety of Dams (NRA 2017). In the event of a dam failure or failure of the levees along the Sweetwater River Channel, portions of National City including the project sites, are at high risk of inundation (County of San Diego 2011). An emergency evacuation plan is in place for the Sweetwater Dam, however, and would be implemented in the unlikely event that the dam fails.

Construction and operation of the proposed project would develop some existing undeveloped parcels that would expose additional people and structures to risk of flooding from dam inundation in the event of dam failure. While new structures would be located within areas prone to flooding, the proposed project would not exacerbate the flooding potential of the project sites or the effects of

flooding on the existing environment and would not impair dam safety. Impacts would be less than significant, and further discussion in the EIR is not warranted.

j. Contribute to inundation by seiche, tsunami, or mudflow?

Potentially Significant Impact. The California Emergency Management Agency has developed detailed tsunami inundation maps. According to the maps for National City, portions of the project sites are located within the tsunami hazard zone (California Department of Conservation 2009). Therefore, the project would result in impacts related to potential tsunami inundation, and this issue would require further analysis in the EIR.

Seiches are waves generated in an enclosed body of water, such as the Sweetwater Reservoir, approximately 6 miles to the east of the project sites, from seismic activity. Seiches are similar to tsunamis but are for enclosed bays, inlets, and lakes. These tsunami-like waves can be generated by earthquakes, subsidence or uplift of large blocks of land, submarine and onshore landslides, sediment failures, and volcanic eruptions. The strong currents associated with these events may be more damaging than inundation by waves. Sweetwater Reservoir is considered to be too far away to affect the project sites. The closest body of water that could experience an earthquake-induced seiche is San Diego Bay, adjacent to the project sites. However, it is generally believed that a seismic event of sufficient magnitude to cause a seiche capable of causing significant damage would be of unprecedented scale for the region and, therefore, is remote and speculative (City of San Diego 2007). Therefore, no impact on the project sites would result from inundation caused by a seiche, and further discussion in the EIR is not warranted.

The risk of mudslides, or flood-induced landslides, is determined by a combination of factors, including slopes with gradient of 25% or greater, soil series data, and soil-slip susceptibility. Steep topography and high levels of precipitation are the primary requirements to generate a mudflow. The project sites are in an area with generally flat topography that does not have the relief or slope to support a mudflow (City of National City 2012). Therefore, the proposed project would not result in impacts associated with mudflows, and further discussion in the EIR is not warranted.

X. 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. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☐	☐
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☒	☐	☐	☐

a. Physically divide an established community?

No Impact. The proposed project would not physically divide an established community. The proposed project would reconfigure the existing mix of land uses in the National City Marina District and nearby City Program sites to create a better connected area for commercial-recreational development while allowing improvements to the existing industrial areas by closing District streets to allow for contiguous cargo storage areas. No impact would occur, and further discussion in the EIR is not warranted.

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

Potentially Significant Impact. The project would require a PMPA, Coastal Development Permits, and amendments to City planning documents (i.e., General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan). The EIR will discuss consistency with all applicable objectives and policies from all the relevant regulations and plans, including Chapters 3 and 8 of the Coastal Act. Sea level rise and consistency with the Coastal Act will also be included in the proposed climate change analysis (see Section VII, *Greenhouse Gas Emissions*). Therefore, this issue will be analyzed further in the EIR.

c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

Potentially Significant Impact. Please see the response to IV.f., which provides the response to the same question. As stated previously, this issue will be discussed further in the EIR.

XI. 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?	☐	☐	☐	☒

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?

No Impact. The project sites are in an area characterized by marine-related industrial activities and visitor-serving commercial uses that does not contain any known mineral resources. No commercial mining operations exist on the project sites or in the immediate vicinity. The project sites and the surrounding area are not designated or zoned as land with the availability of mineral resources (City of San Diego 2008). The proposed project is located within Mineral Resource Zone (MRZ)-1, which indicates that no significant mineral deposits are present or they are unlikely to exist (CGS 2017). In addition, the project sites do not contain aggregate resources and are not located in a mineral resource zone that contains important resources, as designated by the California Department of Conservation Division of Mines and Geology. Therefore, the proposed project would not result in a loss of known mineral resources. No impact would occur, and further discussion in the EIR is not warranted.

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?

No Impact. See the response to XI.a. The PMP and City Planning Documents do not identify any mineral resources in the area or designated plans for mineral resource extraction. The project sites and the surrounding area contain a limited amount of land suitable for the extraction of mineral resources. Salt production occurs approximately 2.6 miles south of the project site within the South San Diego Bay Unit of the San Diego National Wildlife Refuge. However, salt ponds are not located within the project sites and would not be impacted by implementation of the proposed project (City of San Diego 2008). The project would not result in the loss of availability of a known mineral resource or regionally or locally important mineral resource recovery site. No impact would occur, and further discussion in the EIR is not warranted.

XII. Noise	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☒	☐	☐	☐
b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
e. Be located within an airport land use plan area, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Potentially Significant Impact. Project construction and operation would result in additional noise sources, as discussed below. Construction and operational noise will be analyzed in the EIR in relation to their impact on sensitive noise receptors. Noise-sensitive land uses typically include residential uses, hospitals, nursing facilities, places of worship, open space, intermediate care facilities, child educational facilities, libraries, museums, and childcare facilities (National City 2011). The District also considers parks and hotels to be noise sensitive during certain hours of operation. Parks, which are closed during nighttime hours, are considered to be noise sensitive only during the daytime and evening hours of 7 a.m. to 10 p.m. Hotels are considered to be noise sensitive only during the evening and nighttime hours of 7 p.m. to 7 a.m. The nearest sensitive noise receptors to the project sites are residences to the north, on Cleveland Avenue at W 22nd Street, and the Best Western Marina Gateway Hotel at Bay Marina Drive and Marina Way. The proposed bikeway alignment would also pass existing homes on McKinley Avenue. Additional noise-sensitive uses are generally located farther from the proposed project, on the opposite (i.e., east) side of Interstate 5. Pepper Park would typically be considered a noise-sensitive receptor; however, because in this case the park is actually part of the proposed project, it may not be considered a noise-sensitive receptor in this instance. The park's relationship to the other elements of the proposed project will be considered further in the EIR.

Use of equipment associated with project construction would temporarily increase the ambient noise levels in the project vicinity above levels existing without the proposed project. Construction noise sources are anticipated to include pile drivers, dewatering pumps, cranes, forklifts, concrete trucks, bulldozers, bobcats, excavators, backhoes, and concrete pump-towers. Due to the proximity of noise-sensitive receptors, construction noise impacts are potentially significant. Therefore, the EIR will analyze potential construction noise impacts based on the details of the equipment required for the various construction phases (demolition, grading, etc.) and of each project component.

In-water construction activities would potentially occur as part of the GB Capital Component, including additional moorings and improvements to the marina. Underwater (hydroacoustic) noise levels associated with in-water construction activities will also be analyzed in the EIR.

Project operational noise sources would include additional traffic on the surrounding streets and occasional events at Pepper Park. It is anticipated that there would be no noticeable change in noise levels associated with rail use or cargo activities as these uses already exist and it is not anticipated that there would be a significant increase in operations. Noise associated with the onsite operations at the proposed hotels, RV park, and other visitor-serving commercial uses would generally be limited and localized to the project sites. Offsite noise is expected to be limited mainly to vehicular noise on the surrounding roadways. However, the EIR will analyze the potential for any land use compatibility issues and significant operational noise increases from the project.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Potentially Significant Impact. On-road vehicular traffic does not typically produce perceptible levels of vibration outside of the right-of-way, and the proposed onsite operational activities do not include substantial vibration sources that would generate perceptible levels of vibration beyond the project boundaries. Therefore, further analysis of these operational elements of the project is not required. The primary sources of groundborne vibration and noise associated with the project would be heavy construction activities (such as pile driving, demolition, and grading) and freight rail operations. Vibration from trains is unlikely to be significant due to the distance from sensitive receptors. Nonetheless, vibration from both construction activities and rail operations will be evaluated in the EIR.

c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. See response to XII.a. Construction noise would be temporary and, as such, would not cause any permanent increases in ambient noise levels. Permanent operational noise sources associated with the project could include additional traffic on the surrounding streets and onsite operations at the proposed new uses (hotels, RV park, and other visitor-serving commercial uses). This issue area will be analyzed in the EIR.

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Potentially Significant Impact. Project construction activities may result in an increase in temporary or periodic increase in ambient noise levels that could impact sensitive receptors. In addition, occasional events at Pepper Park may result in substantial temporary noise increases. Therefore, the project's potential to result in temporary or periodic increases in ambient noise would be potentially significant and will be evaluated in the EIR.

e. For a project located within an airport land use land use plan or, where such a plan has not been adopted, within 2 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. The project sites are not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan. The San Diego International Airport is more than 5 miles to the north of the project sites. As a result, the project would not expose people residing or working within the project area to excessive airport noise levels. There would be no impact, and further discussion in the EIR is not warranted.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips within 2 miles of the project sites. The closest non-public air facilities to the project sites are NAS North Island and NOLF Imperial Beach. Both are approximately 5.5 miles from the project, with NAS North Island being closest to the north end of the project area and NOLF Imperial Beach being closest to the south end. As a result, the project would not expose people residing or working within the project area to excessive private airstrip noise levels. There would be no impact, and further discussion in the EIR is not warranted.

XIII. 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 population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☒	☐	☐	☐
b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

Potentially Significant Impact. The proposed project would expand operational activities in the area and would create additional operational jobs.

The proposed project would not extend, or create the need for, infrastructure expansion into previously undeveloped areas. The project sites are currently served by existing roadways, water, wastewater, gas, and electrical infrastructure. Land uses that surround the project sites are also served by existing utilities. The proposed project would not involve the addition of any growth-inducing infrastructure, including water and gas lines or electricity, into previously undeveloped areas, because the project sites are within a developed area.

The implementation of the proposed project would require the addition of new employees and would temporarily increase the number of construction workers in the area. The additional jobs are anticipated to be filled by residents currently living in the San Diego region; however, it is possible the additional job opportunities could induce population growth to the area due to relocation to the area. Because the development would require an amendment, and is not currently planned for these parcels, the potential jobs created as a result of the proposed project could result in inducing population growth in the surrounding area that has not been previously anticipated. This issue area will be further analyzed in the EIR.

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project sites are currently developed with maritime industrial, commercial, and recreational uses, and no existing housing units or persons are located on the project sites. No residential land uses are within the project sites or surrounding area. The proposed project would not displace any housing units or necessitate the construction of housing units elsewhere. Therefore, there would be no impact, and further discussion in the EIR is not warranted.

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. As discussed under XIII.a and XIII.b above, the project sites are currently developed with maritime industrial, commercial, and recreational uses, and no existing housing units or persons are located on the project sites. Implementation of the proposed project would not result in the displacement of people, nor would it necessitate the construction of replacement housing elsewhere. Therefore, no impact would occur, and further discussion in the EIR is not warranted.

XIV. Public Services	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
1. Fire protection?	☒	☐	☐	☐
2. Police protection?	☒	☐	☐	☐
3. Schools?	☒	☐	☐	☐
4. Parks?	☒	☐	☐	☐
5. Other public facilities?	☒	☐	☐	☐

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

1. Fire protection?

Potentially Significant Impact. Implementation of the proposed project would lead to more visitors to the project area and would create new structures in areas where there are currently none. This would potentially place increased demand on the National City Fire Department and the Harbor Police Department, both of which provide fire protection services to the project area. Although it is unlikely that the proposed project would require a new fire station or expansion of an existing one, this issue requires further analysis in the EIR.

2. Police protection?

Potentially Significant Impact. The proposed project would result in an increase in visitors to the area and additional employees during construction and operation of the proposed project. As such, the proposed project may increase the demand on the National City Police Department and the Harbor Police Department. As with fire protection services, although it is unlikely that the proposed project would require new or expanded police protection facilities, this issue requires further analysis and will be discussed in the EIR.

3. Schools?

Potentially Significant Impact. Physical impacts on school facilities and services are typically associated with population in-migration and growth, which increase the demand for schools, the construction of which may result in physical impacts on the environment. Implementation of the

proposed project would potentially increase the number of jobs that would be created as a result of construction and operation of the project. These jobs are anticipated to be filled by the local residents in the San Diego region; however, it is possible the increase in job opportunities could induce population growth not currently planned to fill the new jobs. Population growth in the area could result in higher demand for the neighborhood schools, which could result in a need for new or physically altered school facilities. This issue area will be further analyzed in the EIR.

4. Parks?

Potentially Significant Impact. As discussed below in Section XV, *Recreation*, Pepper Park is located within the project site and would be expanded by approximately 2.54 acres from approximately 5.22 acres to approximately 7.76 acres under the proposed project. The project also includes modifications to existing operational restrictions and an expansion of allowed uses (i.e., aquaculture or environmental conservation) that could increase the use of the Aquatic Center. Impacts associated with the expansion of and increased use of recreational facilities could result in a significant impact. This issue area will be further analyzed in the EIR.

5. Other public facilities?

Potentially Significant Impact. As discussed above, the proposed project could induce local population growth has a result of creating additional jobs. This population increase may result in an increased demand requiring the need for new or physically altered public facilities, for example public libraries or post offices, and could result in a significant impact. This issue area will be further analyzed in the EIR.

XV. Recreation	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. 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. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☒	☐	☐	☐

a. 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 proposed project would expand Pepper Park by approximately 2.54 acres from approximately 5.22 acres to approximately 7.76 acres. Although the Pepper Park expansion has not yet been designed, the EIR will analyze possible park features, which may or may not ultimately be included in the final design of the park. In addition, the project includes modifications to existing operational restrictions and expansion of allowed uses (i.e., aquaculture or environmental conservation) that could increase the use of the recreational facility. This issue area will be further analyzed in the EIR.

b. Include recreational facilities or require the construction of or expansion of recreational facilities that might have an adverse physical effect on the environment?

Potentially Significant Impact. The proposed project would include expansion of recreational facilities that may result in an adverse physical effect on the environment. The proposed project includes modifications to operational restrictions and an expansion of allowed uses (i.e., aquaculture or environmental conservation) of the Aquatic Center and expansion of Pepper Park, and also includes construction and operation of Segment 5 of Bayshore Bikeway. The GB Capital Component also includes construction and operation of new and expanded recreational facilities. Therefore, the proposed project would include recreational facilities or require the construction or expansion of other recreational facilities that might have an adverse physical effect on the environment. This issue area will be analyzed in the EIR.

XVI. Transportation/Traffic	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e. Result in inadequate emergency access?	☒	☐	☐	☐
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☐	☐

a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Potentially Significant Impact. The proposed project would increase the number of daily and, potentially, peak hour trips to and from the project area. As such, a Transportation Impact Analysis (TIA) will be prepared to assess roadway segments, intersections, and freeway mainline segments. A net trip generation change based on the proposed land and water use changes will be developed and assigned trips to the adjacent roadway network based on trip generation estimates and existing travel patterns and redistribute exiting trips that may be affected by the proposed network changes. The TIA will include an analysis of both construction and operational traffic, a parking analysis, as well as calculating the project's fair share percentages in the mitigation measures. Impact

determinations based on Appendix G of the State CEQA Guidelines, along with any necessary mitigation, will be summarized in the EIR.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. The designated congestion management agency for the San Diego region is SANDAG. In 2009, the San Diego region elected to be exempt from the state Congestion Management Plan and, since this decision, SANDAG has been abiding by 23 CFR 450.320 to ensure the region's continued compliance with the federal congestion management process. *San Diego Forward: The Regional Plan* (Regional Plan), the region's Regional Transportation Plan and Sustainable Communities Strategy, meets the requirements of 23 CFR 450.320 (SANDAG 2015).

Therefore, to determine if the proposed project would conflict with an applicable congestion management program, the proposed project was reviewed for consistency with the Regional Plan, which is a land use and transportation planning document that discusses land use policy at a very general level. The Regional Plan mostly incorporates the land use policies of local jurisdictions and focuses on transportation infrastructure and management programs to support those policies. The project proposes changes to land use designations that could conflict with the Regional Plan. As such, further analysis will be included in the EIR.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The closest air facilities to the project sites are NAS North Island, NOLF Imperial Beach, and San Diego International Airport, the closest of which is more than 5 miles from the project sites. In addition, the project sites are not within the Airport Influence Area of any airport as defined by an Airport Land Use Compatibility Plan or within the Airport Impact Zones for any of these airports (NOLF Imperial Beach ALUCP 2015, SDIA ALUCP 2014). Furthermore, the proposed project would not involve the development of any structure within the Airport Influence Area that would extend into airspace or be tall enough to result in a change in air traffic patterns or a change in location. Therefore, the project would not result in a change in air traffic patterns or otherwise result in a safety risk. There would be no impacts, and further discussion in the EIR is not warranted.

d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Potentially Significant Impact. The evaluation of potential increases in hazards because of a design feature typically involves determining if any project-related features would result in changes to the circulation system that could affect automobile traffic or pedestrians. Some examples include poor sight-distance at intersections, sharp roadway curves, and driveway/site access along a high-speed roadway. The proposed project would include two road closures (portions of Tidelands Avenue and West 28th Street), realignment of Marina Way, and the potential narrowing of Bay Marina Drive from its current four lanes to two, as well as a complete closure, to thru-traffic. As such, the creation of a road hazard will be analyzed in the EIR.

e. Result in inadequate emergency access?

Potentially Significant Impact. See response to VIII.g. The proposed project would involve closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street, and West 28th Street

between Tidelands Avenue and Quay Avenue, and the potential narrowing or closure (to thru-traffic) of Bay Marina Drive west of Marina Way. The EIR will further evaluate impacts associated with these potential closures.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Potentially Significant Impact. The proposed project includes the construction and operation of Segment 5 of the Bayshore Bikeway. In addition, the project would close and modify roads that currently provide access to the project area. Potential impacts relating to public transit, bicycle, and pedestrian facilities and the plans, performance, and safety of such facilities will be analyzed in the EIR.

XVII. Tribal Cultural Resources	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or an object with cultural value to a California Native American tribe and:				
a. 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	☐	☐	☐	☒
b. 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.	☐	☐	☒	☐

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

a. 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)?

No Impact. A records search at the South Coastal Information Center was conducted for a District-wide study of cultural resources to determine if previously recorded tribal cultural resources are present within the project sites. No tribal cultural resources that are listed in or eligible for listing in the California Register of Historical Resources were identified during the records search. Additionally, a Sacred Lands File Search of the project area was obtained on April 27, 2017, from the Native American Heritage Commission (NAHC) as part of the District-wide cultural resources study. No Sacred Lands were identified by the NAHC. Because there are no Tribal Cultural Resources eligible for listing in the CRHR in the project area, there would be no impact. Further discussion in the EIR is not warranted.

b. 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.

Less-than-Significant Impact. Pursuant to Public Resources Code section 21080.3.1 (Assembly Bill [AB] 52), California Native American tribes traditionally and culturally affiliated with the project

area can request notification of projects in their traditional cultural territory. The District has not received a request for AB 52 project notifications from any local Native American tribes. Additionally, the District has not received a specific AB 52 consultation request for the proposed project.

Due to the developed nature of the project sites and the surrounding area, and the lack of requested notification by tribes, it is unlikely that significant tribal cultural resources would be encountered during construction of the proposed project. Therefore, impacts would be less than significant, and further discussion in the EIR is not warranted.

XVII. Utilities and Service Systems	Potentially Significant Impact	Less-than-Significant Impact with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?	☒	☐	☐	☐
e. Result in a determination by the wastewater treatment provider that 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?	☒	☐	☐	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☐	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☒	☐	☐	☐
h. Result in the wasteful, inefficient, and unnecessary consumption of energy?	☒	☐	☐	☐

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Potentially Significant Impact. The proposed project includes features such as the GB Capital Component and the City Program – Development Component that could further expand commercial uses in the area. These components would generate additional wastewater compared with existing conditions due to the increase in employees and visitors. Although it is not anticipated that the additional wastewater would exceed the requirements of the Regional Water Quality Control Board, this impact will be further discussed in the EIR.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Potentially Significant Impact. The proposed construction and operation of visitor-serving commercial uses, such as hotels would increase water and wastewater demand compared to existing conditions. Further discussion of the need for new or expanded water or wastewater infrastructure will be discussed in the EIR.

c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Potentially Significant Impact. The existing drainage patterns would not be substantially altered with the proposed project; no streams or rivers exist on site. The proposed project would develop some existing undeveloped parcels, which would increase the rate or amount of stormwater runoff from new impervious surface areas. This runoff would be managed by new stormwater facilities in compliance with the District's or City's JRMP and would discharge directly to the San Diego Bay.

The proposed project would not result in a significant increase in stormwater runoff compared to existing conditions because the project sites are mostly developed or graded. However, it would increase impervious surfaces associated with development of some undeveloped parcels. Under the proposed project, the new land uses would increase the amount of impervious surface, which would increase stormwater runoff during construction and operations and may result in the construction of new stormwater drainage facilities. This issue area will be further discussed in the EIR.

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?

Potentially Significant Impact. The proposed project would increase water demand related to increased development associated with operation of up to five hotels, an RV park, modular cabins, expanded marina, restaurant, retail, and/or other combination of tourist/visitor-serving commercial development. The project's additional water demand estimate will be discussed and analyzed using the generation rates in the Sweetwater Authority's Urban Water Management Plan in the EIR.

e. Result in a determination by the wastewater treatment provider that 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. The proposed project would generate additional wastewater related to the GB Capital Component and the City Program – Development Component as more employees and visitors will be utilizing wastewater services in the future. Further discussion of wastewater generation will be included in the EIR.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Potentially Significant Impact. Several solid waste landfills serve the disposal needs of the region. Construction activities would generate solid waste that would require disposal in local landfills. The amount and type of construction solid waste will be analyzed further in the EIR. During site preparation, concrete and other materials associated with construction activities would be exported off site to an approved facility for recycling and disposal. During operations, waste associated with

the additional permanent employees and increased visitor use would be generated. Therefore, further discussion in the EIR is warranted.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Potentially Significant Impact. Diversion rates are used to report solid waste disposal in National City and to address AB 939 recycling goals, which require each city in the state to divert at least 50% of its solid waste from landfill disposal through measures such as source reduction, recycling, and composting. In October 2014 AB 1826 required all businesses to recycle their organic waste beginning in April 1, 2016, depending on the amount of waste they generate per week. This law also required local jurisdictions to implement an organic waste recycling program to divert organic waste generated by businesses. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. The phase-in of this mandate helps the state achieve its overall waste diversion (75% by 2020) and greenhouse gas emissions reduction goals.

During operations, the proposed project would introduce new employees to the area. In addition to solid waste generated by the additional employees, the RV park, modular cabins, hotels, restaurant, retail, and/or other combination of tourist/visitor-serving commercial development, and the expansion of Pepper Park would generate solid waste from hotel guests, and recreational users, as well as general operational activities. The proposed project would be required to comply with applicable waste diversion requirements, and concrete and building materials associated with demolition of existing structures (e.g., asphalt associated with demolition of the existing alignment of Marina Way) would be exported and recycled at one of several approved facilities in San Diego County. Further discussion of solid waste generation will be included in the EIR.

h. Result in the wasteful, inefficient, and unnecessary consumption of energy?

Potentially Significant Impact. The proposed project would increase energy use associated with the proposed increase in commercial uses in the project area. Operations would increase motor vehicle and boating fossil fuel combustion, electricity consumption, and natural gas consumption associated with retail, hotel, and marina uses.

According to Appendix F, Energy Conservation, of the State CEQA Guidelines, a project has the potential to result in wasteful, inefficient, and unnecessary consumption of energy when considering:

- The project's energy requirements and its energy-use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal.
- The effects of the project on local and regional energy supplies and requirements for additional capacity.
- The effects of the project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.

Considering the proposed project's potential increase in energy demand, impacts associated with the consumption of energy are considered potentially significant and will be further analyzed in the EIR.

XVIII. 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 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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

a. Does the project have the potential to 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, 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. Based on the biological survey (Dudek 2017), Parcel B6, which is part of the Balanced Plan and the GB Capital Component, has been previously graded and is mostly disturbed but supports a small amount of scattered special-status plant species. Further evaluation will be provided in the EIR.

As part of the proposed project, in-water work is proposed to occur in the Bay, which would cause potential impacts on fish and marine mammal species. Because the site was not created until the mid-twentieth century using fill materials, the potential for any prehistoric resources to be affected is low. However, given the age of Granger Hall, which may potentially be relocated to Pepper Park as a project feature, the potential exists for impacts on historical buildings. As such, this issue will be further evaluated 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. State CEQA Guidelines Section 15130 requires a discussion of the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable," meaning that the project's incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. The cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-specific impacts and should be guided by the standards of practicality and reasonableness.

As determined by this Initial Study, there may be potentially significant effects related to aesthetics, air quality, biological resources, cultural resources, GHG emissions, hazards/hazardous materials, hydrology/water quality, land use and planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities and service systems. Therefore, the project's potential contribution to cumulative impacts related to these resources will be discussed in the EIR.

Given that the project would have no impact on aesthetics, agriculture and forest resources, geologic hazards and soils, mineral resources, or tribal cultural resources, it was determined that the proposed project would have no potential to result in cumulative impacts related to these resource areas. Further discussion of the cumulative effect on these resources in the EIR is not warranted.

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

Potentially Significant Impact. Based on the analysis above, the proposed project has the potential to result in significant impacts on air quality, biological resources, cultural resources, GHG emissions, hazards/hazardous materials, hydrology/water quality, land use and planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities and service systems. As such, the project has the potential to result in environmental impacts that could cause substantial adverse effects on human beings, either directly or indirectly. Therefore, this issue area will be discussed in the EIR.

References

Aesthetics

California Department of Transportation (DOT). 2018. *List of Eligible and Officially Designated State Scenic Highways.* Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm. Accessed: August 8, 2018.

San Diego Unified Port District (District). 2015. *Port Master Plan*. July. Available: https://www.portofsandiego.org/environment/land-use/port-master-plan.html. Accessed: August 7, 2018.

Agricultural Resources

California Department of Conservation (DOC). 2013. *San Diego County Williamson Act 2013/2014.* Available: http://www.conservation.ca.gov/dlrp/lca. Accessed: August 8, 2018.

———. 2018. *California Important Farmland Finder.* Available: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed: August 8, 2018.

Air Quality

California Air Resources Board (ARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Available: http://www.arb.ca.gov/ch/landuse.htm. Accessed: August 8, 2018.

Biological Resources

Dudek. 2017. *Biological Survey and Wetland Delineation of Area West of Paradise Marsh, National City, California*. February 10.

U.S. Fish & Wildlife Service. 2006. *San Diego Bay National Wildlife Refuge, Sweetwater Marsh and South San Diego Bay Units, Final Comprehensive Conservation Plan and Environmental Impact Statement Summary, August 200*6. Available: https://www.fws.gov/uploadedFiles/Region_8/NWRS/Zone_1/San_Diego_Complex/San_Diego_Bay/Sections/What_We_Do/Conservation/PDFs/CCP_Summary.pdf. Accessed: December 11, 2017.

Cultural Resources

Alden, J. 1857. Map of San Diego Bay, California. 1:40,000 scale. Survey of the Coast of the United States

City of San Diego. 2007. *Paleontological Resources. Draft General Plan. Final PEIR*.

County of San Diego. 2009. *Guidelines for Determining Significance. Paleontological Resources*. Land Use and Environmental Group.

National Environmental Title Research (NETR). 2017. Historic Aerial Photographs. Photographs of Project Area from the 1950s through 2012. Available: https://www.historicaerials.com/viewer. Accessed May (multiple dates) 2017.

U.S. Geological Survey. 1904. San Diego, California, 7.5-minute Quadrangle Map. Surveyed 1902.

Geology and Soils

California Department of Conservation. 2010. California Geological Survey; Fault Activity Map of California (2010). Available: http://maps.conservation.ca.gov/cgs/fam/. Accessed: August 13, 2018.

California Building Standards Commission. 2016. *2016 California Building Code.* Available: http://www.bsc.ca.gov/Codes.aspx. Accessed: August 8, 2018.

California Seismic Safety Commission. 2005. *Homeowner's Guide to Earthquake Safety*. Last revised: July 1, 2005. Available: http://www.seismic.ca.gov/pub/CSSC_2005-01_HOG.pdf. Accessed: December 11, 2017.

City of National City. 2018. *Municipal Code Title 15 Chapter 15.70 – Grading.* Available: https://library.municode.com/ca/national_city/codes/code_of_ordinances?nodeId=CD_ORD_TIT15BUCO_CH15.70GR. Accessed: August 13, 2018.

———. 2018. *Best Management Practice (BMP) Design Manual.* Available: https://nationalcityca.gov/home/showdocument?id=. Accessed: December 12, 2018.

San Diego Geographic Information. 2018. Regional Data Downloads; "Fault Alqpri". Available: http://www.sangis.org/. Accessed: August 13, 2018.

San Diego Unified Port District (District). 2016. Port BMP Design Manual. February.

United States Department of Agriculture (USDA). 2018. Web Soil Survey. Available: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed: August 13, 2018.

United States Department of Agriculture (USDA). 1973. *Soil Survey, San Diego Area, California*. December.

Hazards and Hazardous Materials

California Department of Forestry and Fire Protection. 2009. *San Diego County FHSZ Map.* Last revised: 2012. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_sandiego.php. Accessed: November 20, 2017.

California Department of Toxic Substances Control. 2018. *EnviroStor* database. Available: https://www.envirostor.dtsc.ca.gov/public/. Accessed: August 8, 2018.

Unified Port District of San Diego (District). 2016. *National City Marine Terminal Tank Farm Paving and Street Closures Project & Port Master Plan Amendment Final EIR UPD #EIR-2014-188; SCH#2014121046.*

State Water Resources Control Board (SWRCB). 2018. *GeoTracker* database. Available: https://geotracker.waterboards.ca.gov/. Accessed: August 8, 2018.

Hydrology and Water Quality

California Department of Conservation. 2009. Tsunami Inundation Map: National City Quadrangle. Available: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanDiego/Documents/Tsunami_Inundation_NationalCity_Quad_SanDiego.pdf. Accessed: August 8, 2018.

California Natural Resources Agency (NRA). 2017. *Dams Within Jurisdiction of the State of California.* Department of Water Resources, Division of Safety of Dams. September 2017.

City of National City. 2012a. *General Plan.* Adopted June 7, 2011. Readopted January 24, 2012.

City of National City. 2012b. *Comprehensive Land Use Plan Update EIR. Chapter 4.8, Hydrology and Water Quality*. Available: http://www.ci.national-city.ca.us/Modules/ShowDocument.aspx?documentid=4451. Accessed: November 22, 2017.

City of San Diego. 2007. *General Plan Update – Final Program EIR.* http://www.sandiego.gov/planning/genplan/documents/peir.shtml. Accessed November 22, 2017.

County of San Diego. 2010. *Multi-jurisdictional Hazard Mitigation Plan*. http://www.sandiegocounty.gov/content/dam/sdc/oes/docs/2010-HazMit-Final-August-2010.pdf. Accessed: November 22, 2017.

———. 2011. *San Diego County General Plan Update EIR. Chapter 2.8, Hydrology and Water Quality*. http://www.sdcounty.ca.gov/pds/gpupdate/docs/BOS_Aug2011/EIR/FEIR_2.08_-_Hydrology_2011.pdf. Accessed: November 20, 2017.

Federal Emergency Management Agency (FEMA). 2014. Flood Insurance Rate Map (FIRM), San Diego County, California, Map Item ID 06073C1913G. Available: www.msc.fema.gov. Accessed: April 14, 2014.

Mineral Resources

California Geological Survey (CGS). 2017. Mineral Land Classification Map, National City, California, Special Report 153, Plate 26, California Geological Survey, Information Warehouse. Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_153/SR-153_Plate-26.pdf. Accessed: December 11, 2017.

City of San Diego. 2008. *City of San Diego General Plan, Conservation Element*. March 2008.

Noise

City of San Diego. 2015. *City of San Diego General Plan, Noise Element.* June 2015.

Transportation and Traffic

Airport Land Use Commission (ALUC) San Diego County Regional Airport Authority. 2014. *San Diego International Airport Land Use Compatibility Plan.* Amended May 1, 2014. Available: http://www.san.org/Portals/0/Documents/Land%20Use%20Compatibility/SDIA/SDIA%20ALUCP%20Ch%201-6%20(May%202014).pdf. Accessed: August 13, 2018.

———. 2015. *Naval Outlying Landing Field Imperial Beach Airport Land Use Compatibility Plan.* Adopted October 15, 2015. Available: http://www.san.org/Portals/0/Documents/Land%20Use%20Compatibility/NOLF_IB_ALUCP_FINAL_Compiled_Oct%202015.pdf. Accessed: August 13, 2018.

San Diego Association of Governments (SANDAG). 2015. *San Diego Forward; The Regional Plan.* October 2015. Available: http://sdforward.com/pdfs/Final_PDFs/The_Plan_combined.pdf. Accessed: August 13, 2018.

Mandatory Findings of Significance

Dudek. 2017. *Biological Survey and Wetland Delineation of Area West of Paradise Marsh, National City, California*. February 10.

Appendix B

NOP Comment Letters

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

December 20, 2018

RECEIVED

JAN 3 2019

Planning & Green Port

To: Reviewing Agencies

Re: National City Bayfront Projects and Plan Amendment
SCH# 2018121054

Attached for your review and comment is the Notice of Preparation (NOP) for the National City Bayfront Projects and Plan Amendment draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2018121054
Project Title National City Bayfront Projects and Plan Amendment
Lead Agency San Diego Unified Port District

Type NOP Notice of Preparation

Description 1. Changes to land and water use designation in the SDUPD's Port Master Plan
2. Amendments to the City's National City's LCP, General Plan, Harbor District Specific Plan, Zoning Code and Bicycle Master Plan
3. Construction and operation of a RV Park, modular cabins, dry boat storage up to 4 hotels, and an expanded marina by GB Capital Holdings
4. Construction and operation of a rail connector track and storage track by Pasha
5. Closure of Tidelands Ave between Bay Marina Dr and W. 32nd St, and W. 28th St between Tidelands Ave and Quay Ave by Pasha
6.Construction and operation of hotel, restaurant, retail, and/or a combination of visitor serving commercial development north of Bay Marina Dr and the potential partial closure or narrowing of Bay Marina Dr to through vehicular traffic by the city
7.Construction and operation of Seg. 5 of the Bayshore Bikeway.

Lead Agency Contact

Name Anna Buzaitis
Agency San Diego Unified Port District
Phone 619.686.7263 **Fax**
email
Address 3165 Pacific Highway
City San Diego **State** CA **Zip** 92101

Project Location

County San Diego
City National City
Region
Cross Streets Marina Way, Bay Marina Drive, Tidelands Ave, Civic Center Drive
Lat / Long 32° 39' 9.88" N / 117° 6' 35.98" W
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways I-5, SR-54
Airports
Railways BNSF
Waterways San Diego Bay, Sweetwater Channel
Schools Kimball Elementary
Land Use Marine Terminal, Marine Related Industrial, Commercial Recreation, Recreational Boat Berthing, Park/Plaza, Street, Open Space

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects; Other Issues

Reviewing Agencies Resources Agency; Department of Boating and Waterways; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Native American Heritage Commission; State Lands Commission; California Highway Patrol; Caltrans, District 11; Air Resources Board, Major Industrial Projects; Air Resources Board; State Water Resources Control Board, Division of Water Quality; Regional Water Quality

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Control Board, Region 9

Date Received 12/20/2018 ***Start of Review*** 12/20/2018 ***End of Review*** 01/18/2019

Note: Blanks in data fields result from insufficient information provided by lead agency.

Print Form

Appendix C

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # 2018121054

Project Title: National City Bayfront Projects & Plan Amendments

Lead Agency: San Diego Unified Port District (SDUPD) | Contact Person: Anna Buzaitis, Program Manager
Mailing Address: 3165 Pacific Highway | Phone: (619)686-7263
City: San Diego | Zip: 92101 | County: San Diego

Project Location: County: San Diego | City/Nearest Community: National City
Cross Streets: Marina Way, Bay Marina Drive, Tidelands Avenue, Civic Center Drive | Zip Code: 91950
Longitude/Latitude (degrees, minutes and seconds): 32 ° 39 ' 9.88 " N / 117 ° 6 ' 35.98" W | Total Acres: ~73 Acres
Assessor's Parcel No.: Various | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: I-5, SR-54 | Waterways: San Diego Bay; Sweetwater Channel
Airports: N/A | Railways: BNSF | Schools: Kimball Elementary

Document Type:

CEQA: ☒ NOP ☐ Draft EIR ☐ Early Cons ☐ Supplement/Subsequent EIR ☐ Neg Dec (Prior SCH No.) ☐ Mit Neg Dec Other:

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI Other: ☐ Joint Document ☐ Final Document ☐ Other:

Governor's Office of Planning & Research
DEC 20 2018
STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update ☒ General Plan Amendment ☐ General Plan Element ☐ Community Plan
☒ Specific Plan ☒ Master Plan ☐ Planned Unit Development ☐ Site Plan
☒ Rezone ☐ Prezone ☒ Use Permit ☐ Land Division (Subdivision, etc.)
☐ Annexation ☐ Redevelopment ☒ Coastal Permit ☒ Other: PMPA

Development Type:

☐ Residential: Units ____ Acres ____
☐ Office: Sq.ft. ____ Acres ____ Employees ____
☒ Commercial: Sq.ft. ____ Acres ~23 Employees ____
☒ Industrial: Sq.ft. ____ Acres ~19 Employees ____
☐ Educational:
☒ Recreational: Pepper Park expansion- approx. 2.54 acres
☐ Water Facilities: Type ____ MGD ____
☒ Transportation: Type Streets- realign & close/add rail tracks
☐ Mining: Mineral
☐ Power: Type ____ MW ____
☐ Waste Treatment: Type ____ MGD ____
☐ Hazardous Waste: Type
☒ Other: RV Park, 4 hotels, expanded marina; ext. of bikeway

Project Issues Discussed in Document:

☒ Aesthetic/Visual ☐ Agricultural Land ☒ Air Quality ☒ Archeological/Historical ☒ Biological Resources ☒ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs
☐ Fiscal ☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☐ Geologic/Seismic ☐ Minerals ☒ Noise ☒ Population/Housing Balance ☒ Public Services/Facilities
☒ Recreation/Parks ☒ Schools/Universities ☐ Septic Systems ☒ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☒ Solid Waste ☒ Toxic/Hazardous ☒ Traffic/Circulation
☒ Vegetation ☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☐ Growth Inducement ☒ Land Use ☒ Cumulative Effects ☒ Other: GHG

Present Land Use/Zoning/General Plan Designation:

Marine Terminal, Marine Related Industrial, Commercial Recreation, Recreational Boat Berthing, Park/Plaza, Street, Open Space

Project Description: *(please use a separate page if necessary)*

(1) Changes to land and water use designations in the SDUPD's Port Master Plan; (2) Amendments to the City of National City's LCP, General Plan, Harbor District Specific Plan, Zoning Code, & Bicycle Master Plan; (3) Construction and operation of a RV park, modular cabins, dry boat storage, up to 4 hotels, and an expanded marina by GB Capital Holdings; (4) Construction and operation of a rail connector track and storage track by Pasha; (5) Closure of Tidelands Ave btwn Bay Marina Dr & W. 32nd St, & W. 28th St btwn Tidelands Ave & Quay Ave by Pasha; (6) Construction and operation of hotel, restaurant, retail, and/or a combination of visitor-serving commercial development north of Bay Marina Dr and the potential partial closure or narrowing of Bay Marina Dr to through vehicular traffic by the City; and (7) Construction and operation of Seg. 5 of the Bayshore Bikeway.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "X".
If you have already sent your document to the agency please denote that with an "S".

X Air Resources Board
X Boating & Waterways, Department of
___ California Emergency Management Agency
X California Highway Patrol
X Caltrans District #11
___ Caltrans Division of Aeronautics
___ Caltrans Planning
___ Central Valley Flood Protection Board
___ Coachella Valley Mtns. Conservancy
S Coastal Commission
___ Colorado River Board
___ Conservation, Department of
___ Corrections, Department of
___ Delta Protection Commission
___ Education, Department of
___ Energy Commission
X Fish & Game Region #5
___ Food & Agriculture, Department of
___ Forestry and Fire Protection, Department of
___ General Services, Department of
X Health Services, Department of
___ Housing & Community Development
X Native American Heritage Commission

X Office of Historic Preservation
___ Office of Public School Construction
X Parks & Recreation, Department of
___ Pesticide Regulation, Department of
X Public Utilities Commission
X Regional WQCB #9
X Resources Agency
___ Resources Recycling and Recovery, Department of
___ S.F. Bay Conservation & Development Comm.
___ San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
___ San Joaquin River Conservancy
___ Santa Monica Mtns. Conservancy
X State Lands Commission
___ SWRCB: Clean Water Grants
___ SWRCB: Water Quality
___ SWRCB: Water Rights
___ Tahoe Regional Planning Agency
X Toxic Substances Control, Department of
X Water Resources, Department of

___ Other: _____
___ Other: _____

Local Public Review Period (to be filled in by lead agency)

Starting Date December 20, 2018 Ending Date January 31, 2019

Lead Agency (Complete if applicable):

Consulting Firm: ICF
Address: 525 B Street, Ste 1700
City/State/Zip: San Diego, CA 92101
Contact: Mary Bilse
Phone: (858) 444-3972

Applicant: Please see attached list
Address:
City/State/Zip:
Phone:

Signature of Lead Agency Representative: Anna Gatt **Date:** 12/20/18

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: San Diego

SCH# 2018121054

esources Agency

- [ ] **Resources Agency** Nadell Gayou
- [ ] **Dept. of Boating & Waterways** Denise Peterson
- [ ] **California Coastal Commission** Allyson Hitt
- [ ] **Colorado River Board** Elsa Contreras
- [ ] **Dept. of Conservation** Crina Chan
- [ ] **Cal Fire** Dan Foster
- [ ] **Central Valley Flood Protection Board** James Herota
- [ ] **Office of Historic Preservation** Ron Parsons

Dept of Parks & Recreation Environmental Stewardship Section

- [ ] **S.F. Bay Conservation & Dev't. Comm.** Steve Goldbeck
- [ ] **Dept. of Water Resources** Resources Agency Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife** Scott Flint Environmental Services Division
- [ ] **Fish & Wildlife Region 1** Curt Babcock
- [ ] **Fish & Wildlife Region 1E** Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2** Jeff Drongesen
- [ ] **Fish & Wildlife Region 3** Craig Weightman
- [ ] **Fish & Wildlife Region 4** Julie Vance
- [ ] **Fish & Wildlife Region 5** Leslie Newton-Reed Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6** Tiffany Ellis Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M** Heidi Calvert Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M** William Paznokas Marine Region

Other Departments

- [ ] **California Department of Education** Lesley Taylor
- [ ] **OES (Office of Emergency Services)** Monique Wilber
- [ ] **Food & Agriculture** Sandra Schubert Dept. of Food and Agriculture
- [ ] **Dept. of General Services** Cathy Buck Environmental Services Section
- [ ] **Housing & Comm. Dev.** CEQA Coordinator Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission** Erik Vink
- [ ] **Delta Stewardship Council** Anthony Navasero
- [ ] **California Energy Commission** Eric Knight
- [x] **Native American Heritage Comm.** Debbie Treadway
- [x] **Public Utilities Commission** Supervisor
- [ ] **Santa Monica Bay Restoration** Guangyu Wang
- [x] **State Lands Commission** Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)** Cherry Jacques

Cal State Transportation Agency CalSTA

- [ ] **Caltrans - Division of Aeronautics** Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR** Christian Bushong
- [x] **California Highway Patrol** Suzann Ikeuchi Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1** Rex Jackman
- [ ] **Caltrans, District 2** Marcelino Gonzalez
- [ ] **Caltrans, District 3** Susan Zanchi
- [ ] **Caltrans, District 4** Patricia Maurice
- [ ] **Caltrans, District 5** Larry Newland
- [ ] **Caltrans, District 6** Michael Navarro
- [ ] **Caltrans, District 7** Dianna Watson
- [ ] **Caltrans, District 8** Mark Roberts
- [ ] **Caltrans, District 9** Gayle Rosander
- [ ] **Caltrans, District 10** Tom Dumas
- [x] **Caltrans, District 11** Jacob Armstrong
- [ ] **Caltrans, District 12** Maureen El Harake

Cal EPA

Air Resources Board

- [x] **Airport & Freight** Jack Wursten
  - [ ] **Transportation Projects** Nesamani Kalandiyur
  - [x] **Industrial/Energy Projects** Mike Tollstrup
- [ ] **California Department of Resources, Recycling & Recovery** Kevin Taylor/Jeff Esquivel
- [ ] **State Water Resources Control Board** Regional Programs Unit Division of Financial Assistance
- [ ] **State Water Resources Control Board** Cindy Forbes – Asst Deputy Division of Drinking Water
- [ ] **State Water Resources Control Board** Div. Drinking Water #_____
- [x] **State Water Resources Control Board** Student Intern, 401 Water Quality Certification Unit Division of Water Quality
- [ ] **State Water Resouces Control Board** Phil Crader Division of Water Rights
- [ ] **Dept. of Toxic Substances Control Reg. #_____** CEQA Tracking Center
- [ ] **Department of Pesticide Regulation** CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1** Cathleen Hudson North Coast Region (1)
- [ ] **RWQCB 2** Environmental Document Coordinator San Francisco Bay Region (2)
- [ ] **RWQCB 3** Central Coast Region (3)
- [ ] **RWQCB 4** Teresa Rodgers Los Angeles Region (4)
- [ ] **RWQCB 5S** Central Valley Region (5)
  - [ ] **RWQCB 5F** Central Valley Region (5) Fresno Branch Office
  - [ ] **RWQCB 5R** Central Valley Region (5) Redding Branch Office
- [ ] **RWQCB 6** Lahontan Region (6)
  - [ ] **RWQCB 6V** Lahontan Region (6) Victorville Branch Office
- [ ] **RWQCB 7** Colorado River Basin Region (7)
- [ ] **RWQCB 8** Santa Ana Region (8)
- [x] **RWQCB 9** San Diego Region (9)

- [ ] **Other** _____
- [ ] _____ Conservancy

Last Updated 5/22/18

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

Edmund G. Brown Jr., Governor

RECEIVED
JAN 3 2019
Planning & Green Port

December 27, 2018

Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

RE: SCH# 2018121054 National City Bayfront Projects and Plan Amendment, San Diego County

Dear Ms. Buzaitis:

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: Katy.Sanchez@nahc.ca.gov.

Sincerely,

for

Katy Sanchez
Associate Enviromental Planner

cc: State Clearinghouse

DEPARTMENT OF TRANSPORTATION
DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
PHONE (619) 688-
FAX (619) 688-4299
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

January 31, 2019

11-SD-I-5
PM 9.64
National City Bayfront Projects
NOP/SCH#2018121054

Ms. Anna Buzaitis
San Diego Unified Port District
Dept. of Planning
3165 Pacific Highway
San Diego, CA 92101

Dear Ms. Buzaitis:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Draft Environmental Impact Report (DEIR) for the National City Bayfront Projects and Plan Amendment located near Interstate 5 (I-5). The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. The Local Development-Intergovernmental Review (LD-IGR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Caltrans has the following comments:

Traffic Impact Study

A traffic impact study (TIS) is necessary to determine this proposed project's near-term and long-term impacts to the State facilities – existing and proposed – and to propose appropriate mitigation measures.

Please include ramp intersections along I-5:

- Northbound (NB) and southbound (SB) I-5/Mile of Cars/Bay Marina
- SB exit and entrance ramp to/from 8th St
- NB entrance ramp from 8th St and 7th St.
- NB exit ramp to W. Plaza Blvd.
- NB entrance ramp from Civic Center Dr.
- SB exit ramp to Cleveland Ave.
- NB exit ramp to Harbor Dr.

Please include the following intersections along State Route 54 (SR-54):

- Eastbound (EB) entrance ramp from National City Blvd.
- Westbound (WB) exit ramp to National City Blvd.
- EB exit/entrance ramp to/from Highland Ave.
- WB exit/entrance ramp to/from Highland Ave.

Please analyze the I-5/SR-54 connector.

- The geographic area examined in the TIS should also include, at a minimum, all regionally significant arterial system segments and intersections, including State highway facilities where the project will add over 100 peak hour trips. State highway facilities that are experiencing noticeable delays should be analyzed in the scope of the traffic study for projects that add 50 to 100 peak hour trips.
- A focused analysis may be required for project trips assigned to a State highway facility that is experiencing significant delay, such as where traffic queues exceed ramp storage capacity.
- In addition, the TIS could also consider implementing vehicle miles traveled (VMT) analysis into their modeling projections.
- Any increase in goods movement operations and its impacts to State highway facilities should be addressed in the TIS.
- The data used in the TIS should not be more than 2 years old.
- Please provide Synchro Version 10 files.
- Early coordination is recommended.

Caltrans endeavors that any direct and cumulative impacts to the State Highway System be eliminated or reduced to a level of insignificance pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) standards.

Mitigation measures to State facilities should be included in TIS. Mitigation identified in the traffic study, subsequent environmental documents, and mitigation monitoring reports, should be coordinated with Caltrans to identify and implement the appropriate mitigation. This includes the actual implementation and collection of any "fair share" monies, as well as the appropriate timing of the mitigation. Mitigation improvements should be compatible with Caltrans concepts.

Multi-modal/Complete Streets

Caltrans views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation system.

Caltrans encourages and supports close collaboration with local agencies to work towards a safe, functional, interconnected, multi-modal transportation system integrated through applicable "smart growth" type land use planning and policies.

Caltrans is implementing Complete Streets and Climate Change policies into State Highway Operations and Protection Program (SHOPP) projects to meet multi-modal mobility needs. Please continue to include Caltrans through the development of this project.

Right-of-Way

Please clarify the long-term lease between the San Diego Unified Port District and Caltrans as mentioned in page 8 of the NOP document.

Any work performed within Caltrans' right-of-way (R/W) will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction. Additional information regarding encroachment permits may be obtained by contacting the Caltrans Permits Office at (619) 688-6158 or by visiting the website at

http://www.dot.ca.gov/trafficops/ep/index.html.

Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions, please contact Roger Sanchez, of the Caltrans Development Review Branch, at (619) 688-6494 or by e-mail at roger.sanchez-rangel@dot.ca.gov.

Sincerely,

Melina Pereira

Melina Pereira, Acting Branch Chief
Local Development and Intergovernmental Review Branch

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Marine Region
3883 Ruffin Road
San Diego, CA 92123
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

January 21, 2019

Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101
abuzaiti@portofsandiego.org

Subject: National City Bayfront Projects and Port Master Plan Amendments Notice of Preparation of a Draft Environmental Impact Report (SCH No. 2018121054)

Dear Ms. Buzaitis:

The California Department of Fish and Wildlife (Department) has reviewed the Port of San Diego District's (District) Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the National City Bayfront Projects and Port Master Plan Amendments (Project). The Department appreciates the District's clarification that the comment period is open until January 31, 2019 (Anna Buzaitis, 2019). The purpose of the Project is to identify and evaluate environmental impacts for land and water construction projects, and amend land and water use designations for development of land, tide, and submerged lands granted in trust to the District, and to amend National City's Local Coastal Plan, General Plan, Bicycle Master Plan, and the City's Land Use Plan.

CDFW ROLE

CDFW is California's Trustee Agency for 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; California Environmental Quality Act [CEQA] Guidelines § 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. (Id., § 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 fish and wildlife resources.

CDFW is also a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 *et seq.*) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 *et seq.*), related authorization as provided by the Fish and Game Code will be required.

PROJECT LOCATION

The proposed Project is generally located at 3201 Marina Way, National City, CA 91950 Pier 32 Marina, within Sweetwater Channel, West of Paradise Marsh and North of D Street Fill Wildlife

Refuge (Township 17 South, Range 2 West on the National City U.S. Geological Survey 7.5-minute quadrangle).

PROJECT DESCRIPTION

The Project proposes: 1) new bicycle and walkway paths; 2) expansion of boat docks; 3) twenty boat moorings, and 4 aquaculture buoys within Sweetwater Channel; 4) four new hotels, new administration building, and 38 modular cabins; 5) new recreational vehicle parking lot, and 6) expansion of Pepper Park.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist District in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

GENERAL COMMENTS

Marine Biological Significance

1. The San Diego Bay (Bay), which is 12 miles long and 1 to 3 miles wide, is the third largest protected natural bay on California's 840-mile-long coastline after San Francisco and Humboldt bays. Since 90% of the Bay wetlands and intertidal areas have been filled in and/or functionally degraded, it is very important to preserve and protect the remaining shallow and intertidal, soft shorelines and wetlands within the Bay. The Project area includes the Sweetwater Channel that supports regionally rare habitats including saltmarsh, eelgrass beds, wetlands, and brackish water habitats for resident and migratory fish and wildlife reproduction as well as habitat for foraging, roosting, and sheltering. Some locally unique and rare resident or migratory fish and wildlife species may seasonally utilize habitats within the Sweetwater Channel and within the Project area. Local and/or rare species such as Pacific green sea turtles (*Chelonia mydas*), rare subtropical fish species, and the rare Pacific seahorse (*Hippocampus ingens)* either use or benefit from eelgrass and wetland habitats within the Sweetwater Channel. The range of the Pacific seahorse is from Peru north to San Francisco Bay (Miller and Lea, 1972). The main threats to these sensitive habitats and rare species are sea-level rise, increasing water temperatures and pollution, and high-density coastal developments that lead to eelgrass habitat loss, degradation, and fragmentation. Wetland channel and eelgrass ecosystems in general are locally vulnerable to San Diego's high density human population impacts such as water and light pollution and various boating and human related impacts that are cumulatively significant to the local fish and wildlife communities.

2. Project areas associated with the Pier 32 Marina and the Sweetwater Channel include eelgrass beds and potential eelgrass habitat identified in 2017 (Merkel, 2017). The soft bottom, tidally influenced channel and sloughs may offer eelgrass habitat further up the channel and could be affected by water and boating uses. Nearby eelgrass mitigation sites may be affected by the proposed marina expansion. The Department believes that the Project could result in significant direct or indirect loss and/or increased degradation of eelgrass, intertidal mud flats, channel and wetland habitats as a result of shading and fill of

overwater structures, buildings, piles, additional boating and recreational activities, and mooring/anchor systems.

3. The marina expansion has the potential to result in potentially significant impacts that are in addition to the marina's current operation. Potentially significant impacts may include boat propeller wash and wake effects, lighting, construction and ongoing operational airborne/underwater noise especially related to boats moored or docked inside the channel. Other effects may include anchor chain damage/scour to channel seabed/eelgrass, mudflat damage/erosion, increases in marine debris, non-native or predatory species, and reduced water quality. The Sweetwater Channel water quality impacts may include, but are not limited to the following:

    a. changes in circulation,
    b. increased turbidity and sedimentation,
    c. changes in temperature and dissolved oxygen,
    d. resuspension of water pollutants,
    e. long-term reduction in water clarity,
    f. increased nutrient and toxic pollutant load levels from terrestrial or moored point sources.

Eelgrass Surveys

4. Eelgrass surveys are required in order to identify short- and long-term impacts such as direct losses and indirect impacts from shading before, during, and after all upland, in-water and over-water construction, anchoring and fill, and the areas of ongoing operational activities (docking, mooring, and aquaculture) where potential eelgrass habitat exist. The Department recommends that eelgrass surveys and mitigation meet or exceed minimum requirements and performance standards as per the California Eelgrass Mitigation Policy (NOAA, 2014) unless otherwise approved in writing by the Department.

Fully Protected Species

5. The Department considers adverse impacts to a species listed as fully protected pursuant to Fish and Game Code to be significant. Species designated as fully protected may not be taken or possessed at any time and take must be avoided unless authorized pursuant to a Natural Communities Conservation Plan. (Fish and G. Code § 2800 *et seq.*) The following fully protected species may potentially occur in or adjacent to the Project area: California brown pelican *(Pelecanus occidentalis),* light-footed Ridgway's rail (*Rallus obsoletus*) and California least tern *(Sterna antillarum browni).* (FGC §4700(b) and §3511(a).) The DEIR should include a full impact analysis of California fully protected species that may be in the Project area. More information regarding fully protected species can be found on the Department's website: https://www.dfg.ca.gov/wildlife/nongame/t e spp/fully pro.html.

Light-footed Ridgway's Rail

The Department recommends that the DEIR thoroughly analyze the Project's potential to affect light-footed Ridgway's rail; consistent with CEQA Guidelines, Section 15380, the status of the light-footed Ridgway's rail as an endangered species pursuant to the

federal Endangered Species Act (16 U.S.C. § 1531 et seq.) and the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) and as a Fully Protected species (Fish & G. Code § 3511) qualifies it as an endangered, rare, or threatened species under CEQA.

Light-footed Ridgway's rail populations were in decline until the 1970/80s when management efforts began. The population has gradually increased since that time (Zembal et al. 2014). The main cause for their decline and still the primary current threat is loss and degradation of wetland habitat.

Based on the foregoing and the species' presence (Dudek, 2016) Project impacts could potentially reduce the number and/or restrict the range of light-footed Ridgway's rail.

California Least Terns and Western Snowy Plover

The California least tern nesting site (e.g., D Street nesting site) is located on and managed by the U.S. Fish and Wildlife Service San Diego Wildlife Refuge unit. The nesting site is less than one quarter mile from intertidal and open surface water areas of the Sweetwater Channel and is important for successful bird foraging, nesting, and chick rearing. Care should be taken to ensure that the nesting site remains undisturbed by anthropogenic influences and boating uses. Not only is eelgrass within the San Diego Bay and Sweetwater Channel scarce, the comparatively unfragmented nature of the D Street nesting site may account for it being one of only a few successful California least tern nesting areas within the state. Eelgrass and surface waters located in the Sweetwater Channel are prime foraging habitat for California least terns and contributes to successful chick rearing. California least tern and western snowy plover (*Charadrius alexandrinus nivosus*) have been observed foraging along the Sweetwater Channel and within or adjacent to Project-proposed boat mooring locations (Robert Patton, Pers. comm., 2019). It is therefore imperative to protect the remaining undisturbed eelgrass, channel, and wetland habitats. The focus and goal for locally sensitive and fully protected birds should include protection from take by avoiding and minimizing surface water losses, overwater shading, as well as cumulative boating and marina impacts as stated above, but also avoiding and minimizing live aboard noise, night lighting, and unauthorized boat landings on the bird nesting and Refuge areas.

California Endangered Species Act (CESA)

6. The Department considers adverse impacts to a species protected by the California Endangered Species Act (CESA), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085). Consequently, if the Project, Project construction, or any Project-related activity 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, the Department recommends that the project proponent seek appropriate take authorization under CESA prior to implementing the project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b),(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 the Department 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.

Belding's Savannah Sparrow

The Department recommends that the DEIR thoroughly analyze the Project's potential to affect Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) and obtain CESA permits as necessary. Consistent with CEQA Guidelines, Section 15380, the status of the Belding's savannah sparrow as an endangered species under the California Endangered Species Act (Fish & G. Code, § 2050 et seq.) qualifies it as an endangered, rare, or threatened species under CEQA.

Belding's savannah sparrow is one of a few avian species that resides year-round in the coastal salt marshes of southern California between Santa Barbara and the Mexican border. Within this area, over 75% of the coastal wetland habitat has been lost to urban development, with the remaining habitat fragmented and severely degraded (Zembal et al., 2015). Habitat loss, fragmentation, and degradation due to edge effects are continuing threats to the species. Based on the foregoing and the species' presence (Dudek, 2016) Project impacts would potentially reduce the number and/or restrict the range of Belding's savannah sparrow.

7. The Department maintains a list of rare, threatened, and endangered plants and animals that can be found on the Department's web site: http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline. The Department recommends that the DEIR include a full impact analysis of CESA listed species and their habitats that may be in the Project area. The Department recommends that the Project, as applicable, seek appropriate take authorization from the Department according to Fish and Game Code §2081 for adverse impacts from the Project leading to take of CESA listed species.

California Species of Special Concern (CSSC)

8. Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §15380), it should be fully considered in the environmental analysis for the Project. This should include CSSC that are known to the Project area vicinity or found in the Department's CNDDB or the RareFind databases (https://www.wildlife.ca.gov/Data/BIOS). This may include, but not be limited to, species such as western snowy plover. As such, impacts to this species and its habitats must be identified and avoided, and unavoidable impacts mitigated to a level of less than significant. The DEIR should also include a discussion of the potential impacts to CSSC's

that may occur in association with each Project alternative.

Fish and Wildlife Resources Assessments

9. The document should provide a complete survey assessment of the flora and fauna within and adjacent to the project areas, with particular emphasis upon identifying rare, endangered, threatened, sensitive, and locally unique species and sensitive habitats. The following specific items should be fully analyzed:

   a) The Project footprints and adjacent areas have avian foraging, wetland, and eelgrass habitats, which should be clearly identified and summarized. This should include a table summary of impacted temporary and permanent habitat acreages (habitat losses, gains, shading, and degradation). Addition of artificial hard substrates such as piles, docks, and riprap are generally not considered a gain of habitat for offsetting native habitat or soft bottom/shoreline losses.

   b) The overwater structures, boats, anchors, and moorings will create eelgrass/channel/surface water habitat losses, shading/degradation, and fragmentation. The proposed unrestricted non-motorized boat and human encroachments will likely disturb wetland bird nesting/foraging that could cause nest abandonments, take, reduced bird abundance and diversity, and degraded/fragmented wetland habitat. The lead agency should analyze these potentially significant impacts.

   c) Federal and State fishery management species and their habitats should be identified and summarized.

Update Existing Species Surveys per Established Protocols

10. The DEIR should update the biological flora and fauna surveys performed in 2016 (Dudek, 2017). For species identified with moderate to high potential to occur within the Project area, the DEIR should utilize biological surveys no older than one year from the time of public circulation. Surveys should be conducted in accordance with applicable state or federal survey guidelines at the appropriate time of year (e.g., during nesting, foraging, spawning, or blooming periods) and time of day when the sensitive species are active, identifiable, and detection is maximized. In accordance with the *Biological Survey and Wetland Delineation of Area West of Paradise Marsh, National City, California* (Dudek, 2017) flora and fauna surveys were both conducted on September 23, 2016 (Dudek, 2017). Surveys conducted during late September are not ideally timed to maximize sensitive species detections.

    Specifically, the DEIR should include focused and comprehensive surveys for eelgrass and for fully protected, sensitive, or locally or regionally rare species such as California least tern, California brown pelican, western snowy plover, and light-footed Ridgway's rail. Fully protected bird habitats (nesting, roosting, and foraging sites) should also be surveyed and identified where new non-motorized boating will be allowed along the length of the Sweetwater Channel as well as within and adjacent to the Project footprint. Surveys should be part of a comprehensive marine life and wildlife species assessment and habitat impact analysis for the specific Project area, and the alternatives for dock installations, aquaculture, building designs, buoy/anchoring, mooring systems, and bike/walk paths.

Land Use

11. The DEIR should include a detailed and comprehensive avoidance, minimization, and compensation plan for sensitive wetland/upland and eelgrass habitat impacts. This should include a land use and building plan designed primarily to avoid sensitive habitat impacts from bike/walk path routes and all structures and parking lots that shade, cover, or fill the channel, wetlands, and adjacent upland habitat. For example, dock materials and configurations that maximize light to bottom habitat and channel waters, finding the least impacting alternate routes and locations for proposed bike/walk paths, docks, moorings, and aquaculture. Buffers and setbacks for protection of sensitive wetland and eelgrass habitat should be at least 300 feet when feasible. This would allow additional biological protections, and a sea level rise adaptation strategy allowing wetlands to move landward over time. Best available technologies, methods, and policies should be included for minimizing marine/wetland debris (plastics) and protecting water quality and clarity of water in the channel.

12. This DEIR, and any other future planning documents should incorporate project designs that account for the sensitivity of Paradise Marsh and the San Diego Bay National Refuge. Any land uses and/or public events and concerts should be designed to direct sound, light, people, trash, perching subsidies, and pollution sources away from the marsh and other sensitive biological resources. These design considerations should be incorporated in Section 3.4 *Preliminary Design Parameters* (p. 19) to demonstrate the DEIR's commitment to sustainability principal E-1, which states "[m]an-made and natural environments should be given equal concern for protection, enhancement and impact avoidance" (UDP International, 2016, p.18). Public events and concerts should be sited and timed to prevent direct and indirect effects to biological resources. "Public events and concerts can be considered as part of Phase 0" (UDP International, 2016, p.6). Paradise Marsh and the Refuge are well-established habitats managed for biological resources and benefit National City and the greater San Diego region.

13. All land use planning documents and accompanying figures should distinguish between recreational open spaces and lands managed for the benefit of biological resources (e.g., the 100-foot and 200-foot wetland buffers depicted by Figure 2.1). Figure 2.1: *National City Marina District Study Site — Existing Conditions* and Figure 2.2: *Site Opportunities and Constraints* (UDP International, 2016, p. 11 and 13 respectively) should distinguish land use sensitivities between public recreational open spaces (e.g., Pepper Park) from federal Refuge lands designated and managed for the benefit of biological resources. High intensity land uses that may be appropriate within recreational open spaces may not be appropriate within or immediately adjacent to biological open space areas.

14. The *National City Marina Land Use Study—Task 6 Summary Report, Section 2.2 Key Issues, Opportunities and Constraints* (UDP International, 2016, p. 12) should identify the need to balance environmental stewardship with the opportunities and other constraints. Inclusion of environmental stewardship facilitates a thorough environmental analysis and will encourage consistency with other local and regional planning documents such as the strategic vision of the port, which seeks "...to balance the uses of the maritime industry, commercial development for tourism, leisure and recreation, with environmental stewardship and public safety" (UDP International, 2016, p. 5). The DEIR should analyze project

alternatives and designs that acknowledge the value and sensitivities of natural environments and further the DEIR's recognition that the port's "...remote and isolated location often means that the place is relatively serene in nature, benefitting from proximity to relatively unknown natural environments" and "...the Sweetwater Marsh Wildlife Refuge which further enhances the visual contrast, providing an interesting and engaging experience for visitors" (UDP International, 2016, p. 16).

15. Prior to drafting the draft PEIR, we encourage close coordination with the Department, the U.S. Fish and Wildlife Service, and California Coastal Commission (collectively, Wildlife Agencies) when developing bike path or trail proposals. Coordination should include each Wildlife Agency and should occur sufficiently early to allow meaningful input and/or revisions to the Project design. Land use compatibility, management considerations, mitigation measures, and physical design considerations are essential considerations when analyzing the feasibility and appropriateness of the proposed infrastructure. The *National City Marina District Land Use Study* (UDP International, 2016, p.22) states "[t]he trail [bike path] can be connected near the neighboring wildlife refuge areas where the path leading north and south can be enhanced with jogging trails, vantage points, and shaded bikeways. However, the feasibility of the bikeway will largely depend on the flexibility to enable changes in certain areas, as there are critical sections that might hinder the implementation of the bikeway."

Mitigation Strategies

16. The DEIR should include mitigation measures and monitoring plans proposed to alleviate Project impacts to locally rare, sensitive, and protected species including sea turtles, birds, and fish and their habitats used for foraging, spawning, nesting, and roosting habitats. Unavoidable temporal or permanent marine habitat impacts identified during or after construction may require compensatory mitigation areas for those impacts. Wetlands and eelgrass within a wetland are protected under the California State Fish and Game Code "wetland no net loss" policy. Additionally, vegetated shallows, wetlands, wildlife refuges, and mud flats are considered Special Aquatic Sites under Title 40 CFR, Chapter 1, Part 230. Any anticipated operational and/or construction impacts (habitat loss and/or degradation) require avoidance and minimization methods designed to reduce Project impacts to less than significant levels. If significant impacts are unavoidable or if unexpected impacts occur, tentative and contingency plans should be developed with proposed ways to fully compensate habitat degradation and losses. In-kind wetland habitat creation is preferred by the Department for any wetland or sensitive aquatic habitat loss. Wetland creation is the construction of a wetland on a site that never was a wetland. For proposed wetland preservation and/or restoration, the DEIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat and reduced habitat values. Issues that should be addressed include restrictions on human and boating access, proposed shallow water and intertidal dedications, monitoring and management programs, control of illegal dumping/littering, water pollution, and increased human intrusion.

17. The Department would like to receive, review, and collaborate on draft/final eelgrass, wetland, and species mitigation, monitoring, protection plans, and survey reports.

18. If eelgrass mitigation and translocation is warranted, the Department would require a

Department issued Scientific Collecting Permit for eelgrass collection, and a Letter of Authorization for eelgrass translocations

19. The Port District should include other project locations and design alternatives evaluated to avoid and minimize overwater structures and general boating and mooring impacts to the Refuge, wetlands, channel, and eelgrass habitats. Boat mooring alternative locations may be more feasible outside of, and/or further north of, the channel, where less sensitive habitats are located.

20. The Department recognizes the potential for sound impacts to marine life associated with underwater noise including but not limited to pile driving, dredging, boating, and drilling. The Department is a signatory agency to the Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities, June 12, 2008. The agreed upon sound pressure levels are 206 dB peak and 187 dB accumulated sound exposure level (SEL). The Department recommends that sound pressure level monitoring be included for proposed in-water work as appropriate.

21. The Department recommends that measures be taken to avoid impacts to nesting birds. The Department recommends the DEIR require that clearing of vegetation, when biologically warranted, occur outside of the peak avian breeding season, which generally runs from February 1 through September 1 (as early as January 1 for some raptors). Sections 3503.5 and 3513 of the California Fish and Game Code prohibit take of all raptors and other migratory nongame birds and section 3503 prohibits take of the nests and eggs of all birds. If Project construction is necessary during the bird breeding season a qualified biologist with experience in conducting bird breeding surveys should conduct weekly bird surveys for nesting birds, within three days prior to the work in the area, and ensure no nesting birds in the project area would be impacted by the project. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer should be a minimum width of 300 feet (500 feet for raptors), be delineated by temporary fencing, and remain in effect as long as construction is occurring or until the nest is no longer active. No project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

22. In consideration of the sensitivity of Paradise Marsh and San Diego Bay National Wildlife Refuge, we recommend that Sustainability Principal E-6 be revised to expressly prohibit the use of invasive plant species in any landscaped areas. Invasive species are often detrimental to the environment, economy, and human health. Once introduced, the costs and effort associated with managing and eradicating invasive species can surpass those costs and efforts associated with implementing preventative measures.

23. The Department may require an aquaculture permit, letter of authorization, or scientific collecting permit depending on the type and purpose of the aquaculture activities.

Conclusion:

The Department appreciates the opportunity to comment on the NOP. Department staff is available for consultation regarding potential effects to fish and wildlife resources, as well as specific measures that would mitigate potential effects of the project. If you have any questions regarding terrestrial species/habitat comments, please contact Eric Weiss, Eric.Weiss@wildlife.ca.gov and for questions regarding marine species/habitats please contact Loni Adams, Loni.Adams@wildlife.ca.gov.

Sincerely,

Gail Sevrens
Environmental Program Manager

Ec: Scott Morgan (State Clearinghouse)

Ms. Becky Ota, Environmental Program Manager
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Literature Cited:

Dudek, 2017. Biological Survey and Wetland Delineation of Area West of Paradise Marsh, National City, California. Prepared for San Diego Unified Port District.

Merkel & Associates, Inc., 2017. 2017 San Diego Bay Eelgrass Survey Report. Prepared for the Department of the Navy and San Diego Unified Port District.

Miller, D.J. and R.N. Lea. 1972. Guide to the coastal marine fishes of California. Calif. Dept. Fish and Game, Fish Bull. 157, Pg. 89.

NOAA, 2014. California Eelgrass Mitigation Policy (www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/Final%20CEMP%20October%202014/cemp_oct_2014_final.pdf)

Patton, Robert, 2019. Personal communication, January 10, 2019.

UDP International, 2016. The National City Marina Land Use Study—Task 6 Summary Report. Prepared for the Unified Port of San Diego.

Zembal, R., S. M. Hoffman, and J. Konecny. 2014. Status and distribution of the light-footed (Ridgway's) clapper rail in California, 2014. California Department of Fish and Wildlife, Wildlife Management, Nongame Wildlife Unit Report, 2014-05, Sacramento, CA.

Zembal, R., S. M. Hoffman, and R. T. Patton. 2015. A survey of Belding's savannah sparrow (Passerculus sandichensis beldingi) in California 2015. Nongame Wildlife Program Report No. 2015-02. Wildlife Branch, California Department of Fish and Wildlife, Sacramento, CA.

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

January 31, 2019

Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Sent by email to: abuzaiti@portofsandiego.org

Re: National City Bayfront Projects and Plan Amendment
SCH 2018121054 — *Notice of Preparation*

Dear Ms. Buzaitis:

The California Public Utilities Commission (Commission/CPUC) has jurisdiction over rail crossings (crossings) in California. CPUC ensures that crossings are safely designed, constructed, and maintained. The Commission's Rail Crossings Engineering Branch (RCEB) is in receipt of the *Notice of Preparation (NOP)* for the proposed National City Bayfront Projects and Plan Amendment. San Diego Unified Port District (District) is the lead agency.

The District proposes amendments to the District's PMP and the City's General Plan, Local Coastal Program, Harbor District Specific Area Plan, Land Use Code, and Bicycle Master Plan. These changes would accommodate construction and operation of hotel, restaurant, retail, and tourist/visitor-serving commercial development. The Pasha Rail Improvement Component would include construction and operation of a rail connector track and storage track. In addition, the Pasha Road Closures Component would include closure of Tidelands Avenue between Bay Marina Drive and West 32nd Street as well as West 28th Street between Tidelands Avenue and Quay Avenue, and redesignation of the area of the area from Street to Marine-Related Industrial in the District's PMP. The City Plan Amendments would amend the Bicycle Master Plan to reflect the realignment of the Bayshore Bikeway.

The segment of Tidelands Avenue between Bay Marina Drive and West 32nd Street currently contains the Tidelands Avenue north of 32nd Street crossing (CPUC No. 002-273.47-C, DOT No. 026127N) of the BNSF tracks. The additional rail connector track along the newly aligned Bay Marina Drive would also cross the current alignment of Tidelands Avenue at (or near) this crossing. RCEB requests clarification on the closure of this segment of street in the Draft Environmental Impact Report (DEIR). The District may consider working with BNSF to close this crossing when the highway is closed. Closure of the crossing would entail removal of crossing surfaces and warning devices.

The NOP indicates improvements to the Bayshore Bikeway. The proposed alternative routes would involve modifications to the approaches of the following crossings:

- 19 St crossing (CPUC No. 002-272.85, DOT No. 026902E)
- 19th St E/O Tidelands crossing (CPUC No. 002-272.87-C, DOT No. 026908V)
- Tidelands (N of 19th St crossing (CPUC No. 002-272.80-C, DOT No. 026125A)
- Civic Center Dr (CPUC No. 002-272.50, DOT No. 026901X)

In planning the bikeway route, the District should consider safety improvements to railroad crossings along the route such as addition or upgrade of crossing warning devices. Pedestrian and

bicycle routes should be designed to clearly prohibit and discourage unauthorized access (trespassing) onto the tracks, except at authorized crossings.

Construction or modification of public crossings requires authorization from the Commission. RCEB representatives are available to discuss any potential safety impacts or concerns at crossings. Please continue to keep RCEB informed of the project's development. More information can be found at: http://www.cpuc.ca.gov/crossings.

If you have any questions, please contact Matt Cervantes at (213) 266-4716, or mci@cpuc.ca.gov.

Sincerely,



Matt Cervantes
Utilities Engineer
Rail Crossings Engineering Branch
Safety and Enforcement Division

CC: State Clearinghouse, state.clearinghouse@opr.ca.gov
Tiera Adams, BNSF, tiera.adams@bnsf.com

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(619) 699-1900
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sandag.org

January 30, 2019

File Number 3300300

Ms. Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Dear Ms. Buzaitis:

Subject: National City Bayfront Projects and Plan Amendments Notice of Preparation

Thank you for the opportunity to comment on the Port of San Diego's National City Bayfront Projects and Plan Amendments Notice of Preparation (NOP). The San Diego Association of Governments (SANDAG) is submitting comments based on the policies included in San Diego Forward: The Regional Plan. These policies will help provide people with more travel and housing choices, protect the environment, create healthy communities, and stimulate economic growth. SANDAG comments are submitted from a regional perspective emphasizing the need for better land use and transportation coordination.

Goods Movement

When preparing the Transportation Impact Analysis (TIA), please consider any impacts that the proposed project may have on truck and rail traffic to and from the Port. Furthermore, for any fair-share percentages identified in the mitigation measures of the TIA, please coordinate with SANDAG, Caltrans, the City of National City (City), and other necessary agencies in determining appropriate mitigation projects.

If the proposed hotels and recreational activities included in this project are near or could impact freight activities, please consider avoiding placing incompatible land uses near each other, or consider creating a buffer between these land uses. Similarly, please consider any noise impacts from the proposed rail connector track and storage track.

Transportation Demand Management

When preparing the Environmental Impact Report, please consider integrating transportation demand management (TDM) strategies to help mitigate parking and traffic impacts. The 24th Street Trolley Station provides residents and visitors with critical access to the National City waterfront and adjacent employers. The development of the National City Bayfront presents the opportunity to support the SANDAG Regional Mobility Hub Implementation Strategy and reduce drive-alone trips by promoting shared mobility services

MEMBER AGENCIES
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El Cajon
Encinitas
Escondido
Imperial Beach
La Mesa
Lemon Grove
National City
Oceanside
Poway
San Diego
San Marcos
Santee
Solana Beach
Vista
and
County of San Diego

ADVISORY MEMBERS
Imperial County
California Department of Transportation
Metropolitan Transit System
North County Transit District
United States Department of Defense
San Diego Unified Port District
San Diego County Water Authority
Southern California Tribal Chairmen's Association
Mexico

(e.g., bikeshare, on-demand rideshare, scootershare, carshare) that connect the waterfront to the 24th Street Trolley Station. TDM strategies can include the following:

- To support shared mobility, the Port and City could allow for existing multimodal infrastructure within the public right-of-way to accommodate shared mobility vehicles. Also consider allocating flexible curb space for safe and convenient rideshare passenger pick-up and drop-off.

- Neighborhood electric vehicles (NEVs) could help residents, employees, and visitors fulfill short trips within and around the waterfront and connect to transit. SANDAG sponsored Senate Bill 1151 (Bates, 2018) to authorize any city within San Diego County to establish a NEV transportation plan. Consider coordinating with the City to develop a NEV transportation plan for the National City Bayfront and incorporating NEV-supporting infrastructure within the project. As hotel and commercial development expands, the Port could partner with the hotels to sponsor a NEV shuttle service.

- Micromobility services like dockless bikeshare, e-scooters, and NEVs have quickly become popular mobility choices in the San Diego region. Ensure there is adequate wayfinding signage to help people navigate to and from the waterfront, including signs instructing users how to use and where to park micromobility services.

- High-quality bike parking, such as secure bike lockers, should be included at employment, retail, school, park, and open-space destinations. Bike parking should be located as close as possible to entrances of building or open spaces in highly visible areas. Commercial buildings should include additional facilities, such as showers and locker rooms, to encourage people to bike or walk to work.

- Given the proximity to the 24th Street Trolley Station and the availability of multimodal services, consider reducing parking requirements. Smart parking technologies can help manage changing parking demands and facilitate parking reservations.

For more detailed information on mobility hub services and amenities, please refer to the Mobility Hub Features Catalog. The Mobility Hub Features Catalog and additional information on the Regional Mobility Hub Implementation Strategy are available at sdforward.com/mobilityhubs.

The Port and City can partner with iCommute to learn more about the mobility hub concept and to promote participation in regional TDM programs and services, including the Regional Vanpool Program, Guaranteed Ride Home service, and transit, biking, and carpool incentive programs. More information on these programs can be found at iCommuteSD.com.

Bayshore Bikeway

In February 2018, SANDAG opened a segment of the Bayshore Bikeway along Harbor Drive from the National City boundary south to Civic Center Drive and Tidelands Avenue. The project also installed interim bike lanes on Tidelands Avenue and West 32nd Street while the Port plans the permanent bike path connection south of Civic Center Drive. SANDAG understands that the closure of Tidelands Avenue is part of the Balanced Plan and requests that the existing/interim bikeway facility on Tidelands Avenue not be closed before the permanent alignment of the Bayshore Bikeway is constructed and open to the public.

On Page 18, please add text to describe Figure 17, which shows "existing," "interim," and "ultimate" alignments of the Bayshore Bikeway; please consider editing the legend to reflect "interim alignment" and "ultimate alignment" (as opposed to "potential permanent alignment") of the Bayshore Bikeway. Furthermore, please consider adding text to the first paragraph of this section stating that the alignment would connect directly to existing segments to the north and south of the project area.

Other Considerations

SANDAG has a number of resources that can be used for additional information or clarification on topics discussed in this letter. The following relevant resources can be found at sandag.org:

- Planning and Designing for Pedestrians: Model Guidelines for the San Diego Region
- Integrating Transportation Demand Management into the Planning and Development Process
- SANDAG Regional Parking Management Toolbox
- SANDAG Regional Mobility Hub Implementation Strategy
- Riding to 2050: The San Diego Regional Bike Plan

When available, please send any additional environmental documents related to this project to:

Intergovernmental Review
c/o SANDAG
401 B Street, Suite 800
San Diego, CA 92101

SANDAG appreciates the opportunity to comment on the National City Bayfront Projects and Plan Amendments NOP. If you have any questions, please contact me at (619) 699-1943 or seth.litchney@sandag.org.

Sincerely,

SETH LITCHNEY
Senior Regional Planner

SLI/KHE/kwa

San Diego County Archaeological Society, Inc.

Environmental Review Committee

27 January 2019

RECEIVED
JAN 30 2019
Planning & Green Port

To: Ms. Anna Buzaitis
Planning Department
San Diego Unified Port District
3165 Pacific Highway
San Diego, California 92101

Subject: Notice of Preparation of a Draft Environmental Impact Report
National City Bayfront Projects and Plan Amendments

Dear Ms. Buzaitis:

Thank you for the Notice of Preparation for the subject project, received by this Society last month.

We are pleased to note the inclusion of cultural resources in the list of subject areas to be addressed in the DEIR, and the analysis included in the initial study. We look forward to reviewing it during the upcoming public comment period. To that end, please include us in the distribution of the DEIR, and also provide us with a copy of the cultural resources technical report(s).

SDCAS appreciates being included in the County's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 San Diego, CA 92138-1106 (858) 538-0935

SWEETWATER AUTHORITY

505 GARRETT AVENUE
POST OFFICE BOX 2328
CHULA VISTA, CALIFORNIA 91912-2328
(619) 420-1413
FAX (619) 425-7469
http://www.sweetwater.org

GOVERNING BOARD

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TISH BERGE
GENERAL MANAGER

JENNIFER H. SABINE
ASSISTANT GENERAL MANAGER

January 31, 2019

Ms. Anna Buzaitis
Program Manager, Planning and Green Port
San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101

Subject: National City Bayfront Projects & Plan Amendments, Notice of Preparation
SWA File: (Dev) NC Bayfront

Dear Ms. Buzaitis:

Thank you for providing Sweetwater Authority (Authority) with a copy of the Notice of Preparation and Initial Study for the preparation of an Environmental Impact Report (EIR) for the National City Bayfront Projects and Plan Amendments (Project) prepared by the San Diego Unified Port District (SDUPD). Based on the Authority's review, the following comments are provided.

Water Supply Assessment

As described in the Notice of Preparation, the Project includes the construction of up to five hotels with 463 rooms, RV park areas, modular cabins, an expanded marina, and tourist/visitor-serving commercial development including commercial and retail uses. Please note that this project may be subject to the preparation of a Water Supply Assessment pursuant to California Water Code Section 10912 (Section 10912) and California Senate Bill 610 (SB610). SB 610 requires that once the SDUPD, as lead agency, determines that a "project" as defined by Section 10912 is subject to CEQA, and determines the type of CEQA document required, a request be made to the water provider to prepare a Water Supply Assessment (WSA) to be included in the Project's Draft EIR. Upon determination by the SDUPD that a WSA is required for the project, a request for its preparation shall be made to the Authority. The Authority is available to consult with the SDUPD to assist with information to help make a determination for the WSA requirement.

Water Utilities

There are multiple distribution water mains (mains), service laterals, and water appurtenances located within the Project site. To minimize the potential for conflicts between water facilities and designated public spaces within the Project, the Authority requests that water facilities located within Project areas be relocated to

roads, such as within the realigned Marina Way, and away from planned development areas and environmental buffers. Please note that the relocation of existing Authority facilities and new facilities to serve the project would be subject to the Authority's Rates and Rules, Design Standards, and Standard Specifications for the Construction of Water Facilities, all of which can be found on the Authority's website. The Authority recommends early coordination regarding relocation of facilities in order to avoid Project impacts and/or delays.

Please continue to include the Authority on the Project's distribution list. If you have any questions, please contact Jason Mettler at (619) 409-6755, or jmettler@sweetwater.org.

Sincerely,

SWEETWATER AUTHORITY

Luis Valdez, P.E.
Engineering Manager

LV:IM:vn

cc: Mr. Ron Mosher, Sweetwater Authority
Mr. Jason Mettler, Sweetwater Authority
Mr. Israel Marquez, Sweetwater Authority

The City of
SAN DIEGO
Planning Department

January 31, 2019

Anna Buzaitis
Planning and Green Port Program Manager
San Diego Unified Port District
P.O. Box 120488
San Diego, CA 92112-0488

Subject: **CITY OF SAN DIEGO COMMENTS ON THE NATIONAL CITY BAYFRONT PROJECTS AND PLAN AMENDMENTS NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT**

Dear Ms. Buzaitis:

The City of San Diego ("City") Planning Department has received the Notice of Preparation (NOP) prepared by the San Diego Unified Port District (Port) and distributed it to applicable City departments for review. The City, as a Responsible Agency under CEQA, has reviewed the NOP and appreciates this opportunity to provide comments to the Port. Continued coordination between the City and the Port will be essential. In response to this request for public comments, the City has the following comments on the NOP for your consideration.

TRANSPORTATION AND STORM WATER DEPARTMENT – STORM WATER DIVISION
MARK STEPHENS, ASSOCIATE PLANNER – MGStephens@sandiego.gov, 858-541-4361

1. Under "IX. Hydrology and Water Quality" of the Initial Study/Environmental Checklist, the response to question d at the bottom of page 36 states "no rivers or streams exist on site." Figures in the Notice of Preparation, such as Figure 2, Figure 6, and Figure 7, seem to indicate proposed project elements abutting and within the Sweetwater River channel near where it empties into San Diego Bay. Please ensure that the Draft EIR evaluation includes these elements.

2. The same comment applies under "XVII. Utilities and Service Systems" of the Initial Study/Environmental Checklist in the response to question c on page 55.

9485 Aero Drive, MS 413
San Diego, CA 92123
sandiego.gov/planning/

T (619) 235-5200
sandiego.gov

Thank you for the opportunity to provide comments on the NOP. Please feel free to contact Rebecca Malone, Senior Planner, directly via email at RMalone@sandiego.gov or by phone at 619-446-5371 if there are any questions regarding the contents of this letter or if the Port would like to meet with City staff to further discuss our comments.

Sincerely,

Heidi Vonblum, Program Manager
Planning Department

RM/jm

cc: Reviewing Departments (via email)
Review and Comment online file

Save Our Heritage Organisation
Protecting San Diego's architectural and cultural heritage since 1969

Monday, January 28, 2019

San Diego Unified Port District
Anna Buzaitis, Planning Department
3165 Pacific Highway
San Diego, CA 92101

Re: National City Bayfront Projects & Plan Amendments (UPD #EIR-2018-232)

Ms. Buzaitis,

Save Our Heritage Organisation (SOHO) understands an environmental impact report will be prepared to address the National City Bayfront Projects and Plan Amendments (UPD #EIR-2018-232). SOHO recommends this report to include the relocation of Granger Music Hall to Pepper Park in National City and to avoid any impacts to the Coronado Railroad.

SOHO wants to take this opportunity to first support relocating the historical and deteriorating Granger Music Hall to Pepper Park, and second that the EIR should address this relocation, which is part of the long-term plan for National City. In addition, the projects and plan amendments proposed to include within this EIR must avoid any impact to the Coronado Railroad, a resource that SOHO litigated for over 10 years.

Thank you for the opportunity to comment,



Bruce Coons
Executive Director
Save Our Heritage Organisation

ENVIRONMENTAL HEALTH COALITION
2727 HOOVER AVE., SUITE 202 · NATIONAL CITY, CA 91950 · (619) 474-0220 · WWW.ENVIRONMENTALHEALTH.ORG

January 31, 2019

Anna Buzaitis, Program Manager
Planning and Green Port
San Diego Unified Port District
Environmental & Land Use Management Department
3165 Pacific Highway
San Diego, CA 92101

Via email to: abuzaiti@portofsandiego.org

Re: Environmental Health Coalition comments on NOP for National City Bayfront Projects & Plan Amendments (UDP #EIR-2018-232)

Dear Ms. Buzaitis:

Environmental Health Coalition appreciates the opportunity to review the Notice of Preparation for the National City Bayfront Projects & Plan Amendments. We concur that a full EIR is needed for this project, and offer the following comments on the areas that are important to include in the analysis. The analysis also includes recommendations for mitigations measures and are included in this letter.

Project Description

A full description of proposed public access to the Balanced Plan area for walkers and bikers coming from east of the I-5 would be a helpful addition to the Project Description.

Air Quality

EHC agrees that all air quality criteria are potentially significant and must be analyzed in the EIR. The project proposes to greatly intensify the land use in the Balanced Plan area --up to 5 hotels, an increase in Pasha vehicle throughput of up to 31, 873 vehicles, additional rail activity, and RVs. Both construction and operations of these facilities would increase the volume of air emissions from the plan area. The emissions would include both criteria pollutants such as NO2 and particulate matter, and toxic air contaminants such as diesel exhaust and benzene from mobile sources. Sensitive receptors include children, seniors, and others using Pepper Park. Impacts to the nearest homes, on Cleveland and McKinley, must be included in the analysis.

The Initial Study does not state what threshold of significance the Port plans to use for air quality. We recommend using a threshold of zero, not the County of San Diego's Guidelines for Determining Significance, which do not consider the location-specific conditions as CEQA requires.

CEQA Guidelines recognize that the level of impacts and the significance depends upon a multitude of factors such as *project setting*, design, construction, etc. CEQA Guidelines also call for careful judgment based on scientific and factual data to the extent possible and explain, "For example, an activity which may not be significant in an urban area may be significant in a rural area." (§ 15064(b)) Similarly, emissions of 100 lbs. per day of particulate matter in the National City—an urban low-income community of color already determined by CalEPA to be among the highest in the state for cumulative pollution burden— could potentially be more significant than 100 lbs. per day of particulate matter in, for example, the middle of the desert with no nearby sensitive receptors.

The very least the Port should do and is required to do under CEQA is to not let current conditions become even worse. As any increase in emissions is significant in this community, the threshold of significance for this project for criteria air pollutants should be zero. A threshold of zero would take into account these location-specific conditions:

(a) the entire air basin already has a status of basic non-attainment for the federal (NAAQS) ozone standard and non-attainment for the state (CAAQS) standards for ozone, PM10 and PM2.5,[1]
(b) the project location is in an area with particularly high cumulative pollution burden as identified by California Environmental Protection Agency;[2]
(c) the project location is in an area with high levels of diesel;[3] and
(d) health impacts in the community adjacent to the project could be exacerbated, resulting in additional significant impacts.

EHC recommends that mitigations for air quality impacts include:

- Require use of electrified equipment in place of diesel powered equipment for all phases of construction and operation of the project;
- Maximize transit, pedestrian, and bicycle access to the plan area to reduce traffic emissions generated by worker and public access to the site;
- Set up a truck stop. Establish an area on the terminal to be set aside for a truck stop, where truckers may park for several hours or overnight, reducing the incidence of parking and idling on surface streets. Provision of electricity for the trucks would enable further reductions in emissions and improve working conditions for these long-haul truckers.
- Tier 4 or cleaner locomotives on the terminal;
- Solar Power on rooftops on and off the terminal;
- Enforcement of California's On-Road, Heavy Duty Truck and Bus Rule;
- Subsidize alternative transportation for workers
- Reduce the scale of the project

Biological Impact

In April of 2017, the San Diego Regional Water Quality Control Board released results of a survey of fishers who fish from San Diego Bay, including fishers who fish from the Pepper Park pier. This survey

[1] IS-76, pdfp123
[2] http://www.oehha.ca.gov/ej/ces2.html

confirmed that the pier is regularly used for fishing, and that a substantial portion of fishers eat the fish.[3] The EIR should include analysis of potential impacts to species of San Diego Bay fish that are caught and eaten by subsistence fishers.

Greenhouse Gases

We concur that GHG emissions from construction and operation of the project are significant and must be analyzed in the EIR. We agree also that impacts of sea level rise must be analyzed also. The Significance Level used in the analysis should examine the project's consistency with California's goal to reduce greenhouse gas emissions 40% by 2030.

EHC recommends that mitigations for the project include the measures listed above for mitigation of air quality impacts. In addition, EHC recommends consideration of the following measures to further reduce the significance of GHG emissions.

- Automated Parking System for Pasha vehicles;
- Require initial and continuing energy audits of project building facilities;
- Require that new hotels be net-zero in their GHG impact;
- Reduce the scale of the project.

Transportation/Parking

EIR needs a comprehensive transportation analysis that will outline how the Port will work with the Metropolitan Transit System (MTS) to create intermodal transportation options to the marina. There also needs to be work on creating a permanent heavy-duty truck route with sufficient heavy-duty truck parking.

The Port's EIR utilizes a narrow framework to understand the environmental impacts as it relates to transportation and parking. There are various environmental impacts on the surrounding community that this EIR must take into account.

The EIR maintains an analysis on the narrowing or possible closure of Bay Marina Drive west of Marina Way. The EIR does not, however, include an analysis on how this project will impact the traffic and pedestrian safety at the 24th Street intersection East of the I-5 ramp. There has been an observance of increased pedestrian flow at 24th Street Intersection which has been a concern for safety considering that it is regularly congested with traffic from heavy-duty trucks and vehicles coming from NCMT and from the I-5 ramps. A proposal on narrowing or closure of a street without an analysis on the complete street can pose future safety risks.

The EIR includes plans to close Tidelands but does not include plans to address emergency vehicles access, safety, or inclusion of public transportation routes that will enable people to get to Pepper Park.

[3] https://www.waterboards.ca.gov/sandiego/water_issues/programs/sdbay_strategy/

The EIR should have an analysis on how the Port will work with the Metropolitan Transit System (MTS) to increase safe and easy public accessibility to the marina.

The EIR also includes and analysis on the efficiency of cargo moving strategies but does not include an analysis on the impacts of truck idling, parking, and the lack of a permanent truck route. The insufficient space for truck parking is a burden for residents who live adjacent to the NCMT where trucks continuously park or idle near their homes. The establishment and implementation of a permanent truck route can help remove heavy-duty truck traffic from neighborhoods.

Transportation alone makes up 65% of greenhouse gas emissions in National City[4]. The EIR fails to address an analysis on mobility options such as public mass transit. The nearest transit stop is more than a mile away from the marina and is very difficult to reach by foot. There is also no mention or mitigation efforts addressing the increase of vehicle miles traveled (VMT) by construction workers that will be working on the expansion of the marina. The single occupancy vehicles that drive through National City everyday cause the majority of these emissions. It is the Port's responsibility to address the impacts of its employees travel patterns on the neighboring community and environment.

EHC recommends that the EIR should include analyses on:

- The impacts of narrowing or closure of Bay Marina Drive will have on the 24th street and the intersection with the I-5 freeway
- Constructing a permanent truck route and designating an area for truck parking and idling
- Constructing a shuttle service route for construction workers to job sites and plans for Port to work with MTS to phase it into a permanent route for public to use
- Public transit stops that for residents to use free or at minimal costs

Bay Shore Bikeway/Pedestrian Paths

EHC commends the Port on analyzing a segment of the Bay Shore Bikeway that is away from the heavy-duty traffic. We want to see bikeway and pedestrian paths that connect to the marina east of the 1-5 freeway analyzed.

The EIR discusses plans on improving pedestrian and bicycle paths but does not include discussion of safe pedestrian and bicycle paths east of the I-5 freeway that will connect to the marina. A recent Pedestrian Environmental Quality Index (PEQI) study[5], conducted by community members, indicate the lacking connecting infrastructure for pedestrians or cyclists that connect east of Freeway I-5 to the Marina. The EIR should go a step further and analyze a development of a potential pedestrian bridge that connects from the 24th Street Transit Station over the 1-5 freeway to the marina. This bridge can help improve access to Pepper Park as well as to the local businesses in the area.

[4] http://www.nationalcityca.gov/home/showdocument?id=6785
[5] "Safe Routes To Parks". 2018.Environmental Health Coalition

EHC recommends that the EIR should include analyses on:

- The construction of pedestrian and bicycle paths to Pepper Park/Marina with connections to the east of the I-5 freeway

- A pedestrian bridge from the 24th Street transit station that connects to Bay Marina Drive.

Recreation/Public Access/Amenities

For many years, residents of the west side community have lacked access to Pepper Park. West side community residents want to have the ability to acquire the benefits of living near the waterfront by ensuring that the proposed built environment of the marina is healthy and inviting by including free and safe access to Pepper Park and other public amenities at the marina.

EHC applauds and thanks the Port District for its inclusion of an additional 2.5 acres for Pepper Park in the Balanced Plan. The west side community has long sought more recreational open space, and looks forward to working with the Port on design of the redeveloped park.

There are areas in the EIR that fail to address impacts of the closure of Pepper Park for construction as well as the proposed amenities at the marina.

Since Pepper Park is currently the only open space available to west side residents, EHC recommends investing in amenities at Paradise Creek Park. In order to offset the public closure of Pepper Park, mitigation measures could include investing money into the Paradise Creek Park community garden and a shuttle service for residents to be transported to Paradise Creek Park and Kimball Park.

EHC opposes the proposal in the EIR to eliminate public participation on Aquatic Center programming based on the financial ability/inability to pay. Making any changes to current system will be detrimental to the Aquatic Center as it is a publicly underutilized facility. Financial restrictions will place future barriers for community members from participating in Aquatic Center programing considering that the median household income in National City is $42,178[6], which is below the median household income in the United States[7].

The EIR has an analysis that will include 135 sites that will operate as a proposed RV resort with amenities such as laundry room, swimming pool and other support facilities. Any new amenities that are developed in addition to the waterfront should be designed to enable free accessibility to the public.

The EIR does not mention how the proposed hotel developments in the marina will be environmentally sustainable or have an inviting built environment that does not discriminate those who may not have the financial capacity to patronize the services. The EIR should have an analysis on how the hotel development will be net zero-energy and that the design of the hotels should be inclusive of public uses.

[6] https://datausa.io/profile/geo/national-city-ca/
[7] https://www.census.gov/library/stories/2018/09/highest-median-household-income-on-record.html

The EIR also includes an analysis on the optional feature of Granger Hall at Pepper Park. According to the National Register of Historic Places[8], Granger Hall has served as a music hall and venue in National City but has no direct historical ties with the waterfront. Additionally, the cost of relocating this historic building is unnecessary as the cost to restore and relocate Granger Hall has been estimated at over $2 million dollars[9]. EHC opposes relocation of Granger Hall to Pepper Park as there are no guarantees that it will be free for use to the public and this space could encroach cost and space for future amenities that could be free and public serving.

EHC recommends that the EIR include:

- Public Access to Aquatic Center not being affected by the ability/inability to pay
- Public access to the RV Park
- Investment to Paradise Creek Park as a mitigation measure to offset the impacts of the closure of Pepper Park
- Removing Granger Hall as an optional feature to Pepper Park

Community Benefits Agreement

This is an important opportunity for residents of National City to access economic benefits from the additional jobs that will result from the National City Balanced Plan.

In January 2018, the Board of Port Commissioners adopted amendments to BPC Policy No. 360 (Request for Proposals), that included provisions for labor peace and local hire on large hotel projects where the Port has a proprietary interest. According to the Port Commissioner's resolution, (file# 2019-0014):

> "…WHERAS the proposed amendments to BPC Policy No. 360 provide that where the District has a proprietary interest that the District give considerable preference to respondents that commit to engage in efforts to reduce the risk of labor strife and give considerable preference to proposals that commit to providing employment opportunities within the "Local Area" (San Diego and Imperial Counties) and "Priority Zip Codes" (established by average household income, unemployment rate, and college graduation rates); and
>
> WHEREAS the proposed amendments are also designed to advance environmental justice in the region by providing significant employment opportunities to residents in the Local Area and Priority Zip Codes as the Priority Zip Codes encompass many low-income and minority populations that can be disproportionately burdened by or less able to prevent, respond to, and recover from adverse environmental impacts related to operations on District Tidelands; the proposed local hiring preferences provide those populations with a more equitable share of the benefits being generated on District Tidelands;…"

EHC proposes that the EIR addresses a new and local workforce from the proposed development of the National City Balanced Plan. The EIR should include an analysis on how project labor agreements give

[8] https://npgallery.nps.gov/NRHP/GetAsset/49a6e820-9753-4b23-aa20-593665504455
[9] http://www.nationalcityca.gov/Home/ShowDocument?id=17990

preference in hiring National City residents. This can be a measure to help further reduce greenhouse gas emissions by creating local and accessible jobs through public transit.

Additionally that we recommend that the EIR includes how an employers' agreement to card check neutrality will ensure equitable disbursement of benefits generated on District Tidelands.

EHC recommends

- National City Bayfront Projects & Plan Amendments provide for labor peace and local hire of jobs in both the construction and operations of the projects proposed in the National City Marina District Balanced Land Use Plan. This proposal is similar to Exhibit 4 ("Covenants and Agreements of District with Respect to Job Quality") of the Chula Vista Bayfront Master Plan Settlement Agreement in 2010.

Thank you again for the opportunity to comment on this important issue. We look forward to working with Port staff as this environmental review and project progresses.

Sincerely,

Sandy Naranjo
National City, Land Use Policy Advocate

Joy Williams
Research Director

National City Bayfront Projects & Plan Amendments
Environmental Impact Report (EIR)

COMMENTS REGARDING SCOPE OF DRAFT EIR

PLEASE PRINT CLEARLY

NAME: Marcus Bush

ORGANIZATION: Resident

MAILING ADDRESS: 2360 Euclid Ave #12

EMAIL ADDRESS: mbush619@yahoo.com

****

COMMENTS: To mitigate the Greenhouse Gas Emission & traffic impacts, a pedestrian/bike/transit bridge is needed over the I-5 to connect the 24th St Trolley Station & Westside National City neighborhood with the waterfront. The bridge could connect to Mckinley Ave or W 23rd St.

In addition, the Port should also consider a rail, shuttle or bus connection between the 24th St Trolley Station to Pepper Park & the Marina / future hotels.

Written comments will be accepted until 5 p.m. on Thursday, January 31, 2019.

Please submit written comments via personal delivery or mail service to:
San Diego Unified Port District
Attn: Anna Buzaitis, Planning Department
P.O. Box 120488, San Diego, CA 92112-0488

or email to: abuzaiti@portofsandiego.org

Questions? Contact Anna Buzaitis at (619) 686-7263

Margaret Godshalk
2143 Cleveland Avenue
National City, CA 91950
mgodshalk@sbcglobal.net

RECEIVED
JAN 31 2019
Planning & Green Port

Comments:

This comment concerns the option of building modular cabins on the jetty. As a life long resident of National City, I know the main access to our bay is a visual one. On my daily morning walk along the bike path, I have a clear view of the bay and the constructed wetland south of the marina. I can watch pelicans, cormorants, egrets, brants, herons, and other marsh birds through the fence along the marina. If cabins are constructed in the proposed areas, that visual access would be eliminated. This is a loss of open space.
Study the construction of a walking path and viewpoint park along the jetty south of the marina, with no cabins or structures.

This comment concerns the impact on air quality from the vessels serving Pasha. I have observed black smoke spewing from the smokestacks of the vessels. The mitigation plan could include requirements to reduce these emissions with electric service to the vessels and a smokestack bonnet to capture emissions.
Study the possible increase in the number of vessels that will service Pasha and mitigate the emissions from those vessels.

RECEIVED
JAN 31 2019
Planning & Green Port

Comments and recommendations for the NOP- EIR for the Balanced Plan and proposals in National City:
Submitted by Ted Godshalk, January 31, 2019

A- GB Capital Proposals-

1- Study a dry boat storage building of one story, 20,000 square feet capable of storing 100 boats at a maximum height of 30 feet.

2- Study the location of a new maintenance building of 4000 square feet and a 7,000 square foot maintenance yard at the southwest end of the proposed dry boat storage.

3- Study the construction of a "Central Promenade" of 30 feet in width to accommodate pedestrians only in a north-south orientation from Marina Way through the proposed RV park to the viewpoint pier at the existing marina.

4- Study the construction of a walking path and a viewpoint park on the jetty south of the marina with no cabins or other structures.

5- Study the cummulative sum of the impacts from the five new water-based infrastructure items proposed in the Sweetwater Channel and Marina.
a- 20 moorings
b- 620 foot long, 8 foot long floating dock with three fingers
c- 580 foot long, 8 foot wide dock with two 80 foot long, 5 foot wide gangways
d- Fiture area for aquaculture
e- 4,400 square foot pier

6- Study the significant hazard (in the Hazards and Hazardous Materials section) to the public that would be created by the proposed two 500 gallon fuel tanks and their location along the reconfigured Marina Way. Study the possible conditions, along with proposed road closures that may interfere with or conflict with emergency response plans and emegency evacuation plans. This EIR should study these plans, if they exist, and determine their efficacy and applicability.

B- Bikepath proposal-

1- The viability of Route 2 of the Bayshore Bikepath through National City is so onerous and objectionable that it is improper to consider it as an alternative route. Route 2 trasverses a commercial private property where it would raise major conflicts between hotel property management, hotel parking lot users, and bike riders. The route also moves east and west along a circuitous route that bikers would find difficult and unneccesary.
A better alternative for this EIR should be analyzed that includes a bike path of either Class I, Class II, Bicycle Boulevard, or Cycle Track types. This path should be on Cleveland Ave. from the Harbor Drive and Civic Center Drive intersection south to Bay Marina Drive, then west to Marina Way and on to the Bayshore Bikepath. The ususued train tracks (owned by MTS) in the middle of Cleveland Ave. should be studied as a potential Brownsfield that could be removed and the street then redesigned for this alternative route.

C- Pasha proposal-

1- Study the Traffic and Transportation impacts of making Tidelands Ave. a one way street from West 32nd St. at Pepper Park to Bay Marina Drive and a two way Bay Marina Drive from Tidelands Ave. to I-5.

2- Study the circulation, parking, emergency vehicle access, and evacuation routes needed to provide a high service level for hotels at GB Capital, for increased user numbers at Pepper Park and for increased truck and train traffic in the Port District.

3- Include in the traffic analysis, a study of the potential impacts on the CalTrans freeway entrances and exits at Bay Marina Drive and I-5.

4- Study a mitigation plan where Pasha, BNSF, and the Port District construct and use a "Smart Park" Truck Parking Information System to manage trucks working through the Port businesses.

5- Study previous five years' throughput and determine projections of the BNSF auto business and determine how this data relates to imacts from Pasha, NC, and GB Capital proposals.

6- Study the previous five years' traffic flows and determine projections at the U.S. Navy's 19th Street gate and feeder streets and determine how this data relates to imacts from Pasha, NC, and GB Capital proposals.

D- Pepper Park-

1- Study reducing the Marine Terminal area that is the historic FPR to allow for 4.5 acres to be added to Pepper Park in the area known as P3.

2- Study an added park area of approximately 1 acre along the west side of the entrance road D1 and 3.5 acres to be connected to the parcel P2.

E- General-

1- Provide a matrix of the Environmental Checklist components that relate to each project component.

Appendix C

Freight Rail Operations in the San Diego Region

SAN DIEGO UNIFIED PORT DISTRICT

MEMORANDUM

Date: September 17, 2015

To: Board of Port Commissioners

Via: Joel Valenzuela
Director, Maritime Operations
jvalenzu@portofsandiego.org

From: Christie Coats
Senior Asset Manager, Maritime Properties
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Anna Buzaitis
Senior Redevelopment Planner, Environmental and Land Use Management
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Subject: Freight Rail Operations in the San Diego Region

The National City Bayfront is a location-specific planning initiative warranting an expedited work effort in order to achieve near-term, as well as long-term, District objectives. At the July 2015 Board of Port Commissioners (Board) meeting, the Board directed staff to hold a special workshop of the Board to discuss National City Bayfront land use issues, specifically looking at marine terminal optimization, commercial development, and public access.

The purpose of this memo is to provide general information on freight rail operations in the San Diego Region in advance of the September 23, 2015 Special Meeting of the Board. The operation of the freight rail that serves the District's terminals is limited by capacity and allowable operating windows in San Diego County, as well as in the Los Angeles and Riverside areas. However, there remains limited train capacity to allow for an additional Pasha Automotive Services (PAS) vehicle unit train each day. In order to utilize this additional capacity and accommodate constraints on the rail line, including freight train operating windows, length constraints, and constraints on rail car storage, improvements in rail infrastructure at NCMT are required to accommodate additional cargo movement by rail. This is consistent with the preliminary findings of the Vickerman National City Optimization Study presented to the Board in July.

This memo covers the following rail topics:

- Rail Line Geography and Ownership
- Agency Responsibilities and Authority
- Freight Operating Windows

Subject: Freight Rail Operations in the San Diego Region

- Capacity
- Operations

This memo was prepared by District staff using public information provided by District Rail Consultant John J. Hoegemeier of SD Freight Rail Consulting.

Rail Line Geography and Ownership

All freight rail arriving in San Diego and leaving San Diego runs through the Atwood area, east of Fullerton, California. Freight rail that departs San Diego heads eastward from Atwood to further destinations in the United States. Between the District's terminals and Atwood, there are five different rail segments (or subdivisions) which are owned and operated by five different organizations, each with their own limiting factors for freight rail operations. These rail segments are shared by passenger and freight rail. The rail segments (from south to north) and the owner/operators are as follows:

- BNSF San Diego Subdivision – Owned and operated by BNSF
- North County Transit District (NCTD) San Diego Subdivision – Owned by NCTD and Metropolitan Transit District; Operated by NCTD
- Orange Subdivision – Owned by Orange County Transit Authority (OCTA); Operated by Metrolink
- Olive Subdivision – Owned by OCTA; Operated by Metrolink
- San Bernardino Subdivision – Owned and operated by BNSF

The locations of these five rail segments and the rail segments within the central portion of San Diego are shown on Attachment A.

Agency Responsibilities and Authority

Federal, state, and regional agencies oversee various aspects of the rail lines, as discussed further below.

Federal

All rail operations in the United States are overseen by the Surface Transportation Board (STB), which is an independent agency within the United States Department of Transportation. The STB is the operating authority and grants preemptions that give rail operations priority over local jurisdictions in regard to interstate rail operations.

The Federal Railroad Administration is the Federal authority for rail safety and operating rules. The Federal Railroad Administration also enforces the hazardous materials rules for safety related to the Pipeline and Hazardous Materials Safety Administration.

State

The California Public Utilities Commission (CPUC) has authority of rail safety and operating rules, and grade crossings in California. The CPUC's authority extends into ports and non-railroad industrial (e.g., oil refinery, power plant) tracks and operations.

Subject: Freight Rail Operations in the San Diego Region

Regional
The NCTD is responsible for track and signal maintenance and performs the dispatching for all rail operations (passenger and freight) within the San Diego Subdivision. BNSF operates its freight trains by authority of a freight easement on the tracks owned by NCTD. Freight operating windows are prescribed in a contract between BNSF and NCTD, with the times published in an operating timetable.

The Southern California Regional Rail Authority (SCRRA), also known as "Metrolink," operates the multi-county Metrolink rail system and is responsible for track and signal maintenance and dispatching within its rail lines.

BNSF is responsible for track and signal maintenance of the rail lines that it owns, and also performs the dispatching within the San Diego and San Bernardino Subdivisions. BNSF's San Bernardino Subdivision connects to the remainder of the United States rail system and freight rail operates freely east of the San Bernardino Subdivision. No commuter passenger trains (e.g., Coaster, Metrolink) operate east of the San Bernardino Subdivision; however, these rail lines are shared with Amtrak, which has priority dispatching on the lines. BNSF has exclusive freight operating rights on the San Diego, Orange, and Olive Subdivisions.

Freight Operating Windows
Passenger trains (e.g., Coaster, Amtrak, Metrolink) within the San Diego Subdivision have priority use of the rail lines within certain timeframes each day. Freight rail is not allowed to operate during these timeframes. The restricted freight operating windows on the San Diego rail line are from 5:30 a.m. to 8:30 a.m. (the "morning commute") and from 3:00 p.m. to 7:00 p.m. (the "evening commute"). The restricted freight operating windows within the Orange and Olive Subdivisions are from 4:00 a.m. to 9:00 a.m. (the "morning commute") and from 5:00 p.m. to 9:00 p.m. (the "evening commute").

The freight train transit time between the San Diego and Olive Subdivisions is typically between three (3) to three and a half (3.5) hours.

Capacity
Freight rail operations are limited by capacity. Capacity comes in the form of line capacity, train capacity, and spot capacity, as discussed below.

Line Capacity
Line capacity is the physical number of trains that can fit on a rail corridor per day. The line capacity is usually a function of track speed, amount of double-track, and sidings. Line capacity is usually determined using sophisticated computer models which determine delay as the number of trains on the line increase. These computer models produce "stringline" diagrams which plot the location of trains versus time over a 24-hour period. This computer model determined the freight train capacity on the San Diego Subdivision to be limited to eight (8) daily trains – 4 southbound (inbound) and 4 northbound (outbound). Of these eight freight trains, six (3 inbound, 3 outbound) are modeled within the nighttime window and two (1 inbound, 1 outbound) are modeled within the daytime window. In addition, there are at least 44 (22 roundtrip) daily passenger trains on the San Diego Subdivision.

Subject: Freight Rail Operations in the San Diego Region

Train Capacity

Train capacity is the physical limitations on train operations due to train length and/or train tonnage. Trains operating in different directions require sidings (a short stretch of railroad track used to enable trains on the same line to pass) or double track (parallel tracks with one set of tracks running in each direction) in order to meet, or pass each other. Trains operating at different speeds but in the same direction require sidings or a double track for the faster train to overtake, or move past, the slower train. In order to accommodate the meets (location where trains moving in opposite directions "meet") or overtakings, the lengths of the trains have to be limited in order to fit into the sidings.

The shortest siding in the San Diego Subdivision is 4,400 feet. The length of this shortest siding is a limiting factor in freight trains operating between the restricted windows. Freight trains that operate during the day time, between those two restricted windows, are limited to a length of 4,400 feet, unless prior arrangements are made within the subdivision dispatcher. As a point of comparison, within the San Bernardino Subdivision, trains are limited to 8,000 feet in length. This length restriction allows for passenger trains to meet or overtake freight trains within the length limit on the sidings within the San Diego Subdivision. This length restriction is necessary to ensure that the freight train reaches the San Bernardino Subdivision within that operating window and does not delay the passenger trains during the evening commute.

In addition, steep grades (also known as "mountain grade territory") require more horsepower as the train is more difficult to pull. Therefore, rail track with steep grades have operating window limits on the tonnage a train can carry and prescribe a minimum amount of locomotive horsepower per ton. Since the tonnage a train carries determines the acceleration time, the acceleration of a train slows in mountain grade territory. Miramar Hill in the San Diego Subdivision is considered mountain grade territory and thus a factor in the train capacity in the San Diego Subdivision.

If a freight train does not travel at a speed that allows for the three (3) to three and a half (3.5) hour transit time needed to reach Atwood from downtown San Diego, it will have to pause within one of the "rail sidings" along the route and wait for another train to pass. The effective freight operating window is reduced by the transit time in order to ensure that there is sufficient transit time to clear the restricted freight operating windows within the San Diego, Orange, and Olive Subdivisions.

Effective Operating Windows

Taking into consideration the restricted freight operating windows on the San Diego, Orange and Olive Subdivisions, as well as the train length restrictions, the effective operating windows are as follows:

- Northbound (outbound) train departing San Diego: from 7:00 p.m. to 2:00 a.m., and from 9:00 a.m. 11:30 a.m.
- Southbound (inbound) train enroute to San Diego entering the rail corridor at Atwood: from 9:00 p.m. to 2:00 a.m., and from 9:00 a.m. and 11:30 a.m.

Subject: Freight Rail Operations in the San Diego Region

The figure on Attachment B shows typical rail operations on the San Diego Subdivision between the downtown San Diego entrance to the BNSF facility near Cesar Chavez Parkway and the Santa Fe Depot. All of these freight trains subsequently travel north through the other four subdivisions noted above.

Spot Capacity
Spot capacity determines the ultimate number of cars a rail facility (e.g., terminal, yard, storage) can accommodate. Facilities utilizing rail on a regular basis require space to build a train, *plus* space to store a backup stock of empty railcars. For facilities with outbound (northbound) loadings, the number of required rail car spots is typically equal to the maximum number of rail cars loaded, *plus* the safety stock for empty rail cars which ensures that sufficient rail cars are available to be loaded each day. These extra empty rail cars, also known as "safety stock," help to ensure that sufficient rail cars are available to be loaded each day and thus, regular train service can be uninterrupted.

Safety stock is necessary because an operation requiring regular rail service is not guaranteed to receive the same amount of empty rail cars that would be needed for the next day's outbound shipment. For example, Pasha Automotive Services' (PAS) vehicle processing facility at the National City Marine Terminal (NCMT) requires regular rail service to transport vehicles to points east of California. On a nearly daily basis, a train carrying empty vehicle-carrying (e.g., bi-level, tri-level, Automax) train cars comes inbound to NCMT. PAS then loads those empty rail cars with vehicles and the train departs outbound (northbound) via the five rail subdivisions described above before it travels to points east of California. PAS is not guaranteed the same amount of empty railcars with each inbound (empty) train.

The quantity of empty railcars is dependent on the number of loaded train cars arriving at BNSF's facilities from the east. Once BNSF unloads those train cars, the empty railcars are dispatched to the next facility, such as PAS' facility at NCMT, for loading. Therefore, safety stock is required to ensure that sufficient empty rail cars are available to be loaded each day and that outbound shipments remain uninterrupted. The necessary safety stock can be as high as one (1) to one and a half (1.5) times the amount of loading spots. Train cars are pooled assets throughout the United States and must remain moving as much as possible, so facilities that utilize these train cars are only allowed to keep safety stock on hand for a few days at a time.

Mixed freight switching yards, such as the BNSF facility near Cesar Chavez Parkway, are usually designed to handle only mixed freight trains for switching (reorganizing the order of train cars). Unit trains usually must be spotted (fit) directly into terminals or into separate storage tracks. Storage capacity is the number of rail cars that fit into separate storage tracks and is also a term used to describe the space necessary to build a train. These tracks augment terminals and yards. Thus, the National City rail yard must accommodate the storage and building capacity for the vehicle unit trains that depart NCMT daily. Rail cars used to build a PAS vehicle unit train are not stored at the BNSF yard near Cesar Chavez Parkway.

Subject: Freight Rail Operations in the San Diego Region

Operations

There are three types of main line freight trains that BNSF operates in San Diego:

- Mixed Freight (Manifest) - These trains move the mixed freight which includes tank cars, box cars, flat cars, and hopper cars for a multitude of area customers. The District is served by these trains which provide some soda ash to the Tenth Avenue Marine Terminal (TAMT) and lumber to NCMT.

- Vehicle Unit Trains - These trains consist of only multi-level autoracks carrying vehicles. These trains originate and terminate at NCMT and at the BNSF facility near Cesar Chavez Parkway where BNSF loads vehicles for outbound rail shipments.

- Unit Trains - These trains contain a solid commodity for a single customer. These types of trains serve TAMT for commodities such as wind energy, military equipment, and bulk soda ash. This train type runs on an infrequent basis, as needed.

BNSF typically operates one roundtrip mixed freight and one roundtrip vehicle train per day. The mixed freight is daily while the vehicle trains are typically six days per week.

As mentioned earlier, there are eight (four roundtrips) daily freight train slots, or operating windows, modeled for the San Diego Subdivision. The regularly scheduled trains are as follows:

- 1 roundtrip mixed freight manifest (nighttime) – 2 trains
- 1 round trip vehicle train (nighttime) – 2 trains

And the following freight train slots run infrequently, on as "as needed" basis.

- 1 round trip train (nighttime) – 2 trains
- 1 round trip train (morning) – 2 trains

Of the eight slots, four are typically used (one mixed freight roundtrip and one vehicle roundtrip); however, each of the eight slots has been used at least once over the last 90 days. For example, there have been instances where the regularly scheduled mixed freight or vehicle trains miss their night time slot. In these cases, BNSF often dispatches those trains to depart San Diego within the morning slot.

Conclusion

In summary, while there is train capacity to allow for an additional PAS vehicle unit train each day, in order to accommodate constraints on the rail line, including freight train operating windows, length constraints, and constraints on rail car storage, improvements in rail infrastructure at NCMT are required to accommodate additional cargo movement by rail.

Subject: Freight Rail Operations in the San Diego Region

Should you have any questions, please contact me at (619) 686-6293 or via email at ccoats@portofsandiego.org or Anna Buzaitis at (619) 686-7263 or via email to abuzaiti@portofsandiego.org.

Attachments:

Attachment A: Rail Segments in San Diego and Los Angeles Regions and Central San Diego

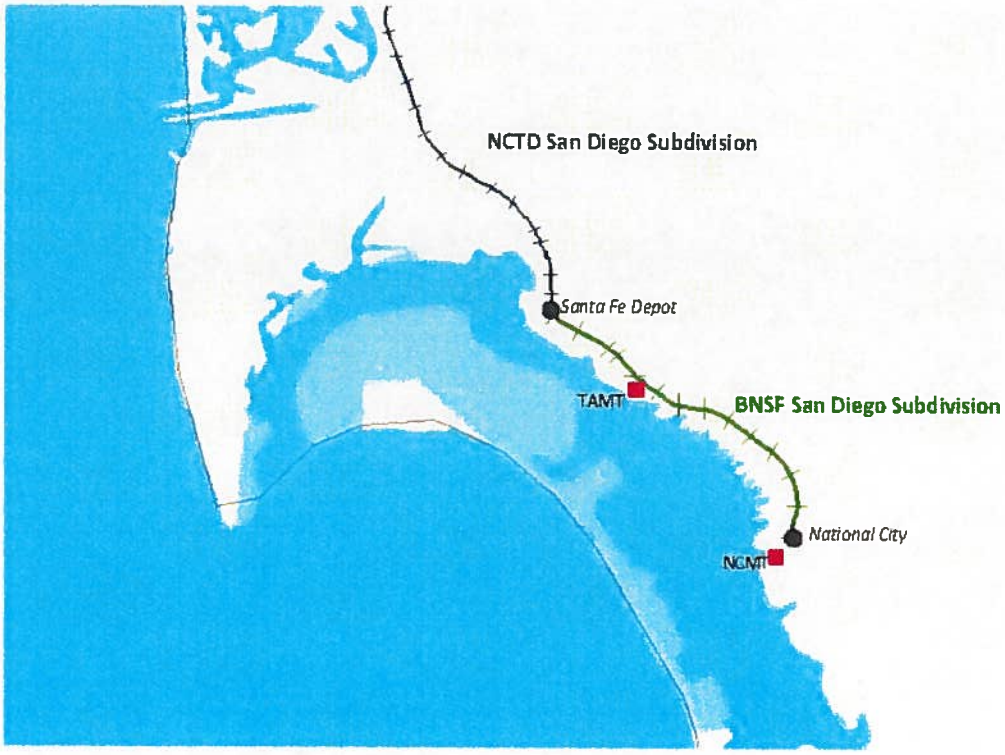
Attachment B: Typical Rail Operations within San Diego Subdivision, South of Santa Fe Depot

Attachment A

Rail Segments in San Diego and Los Angeles Regions

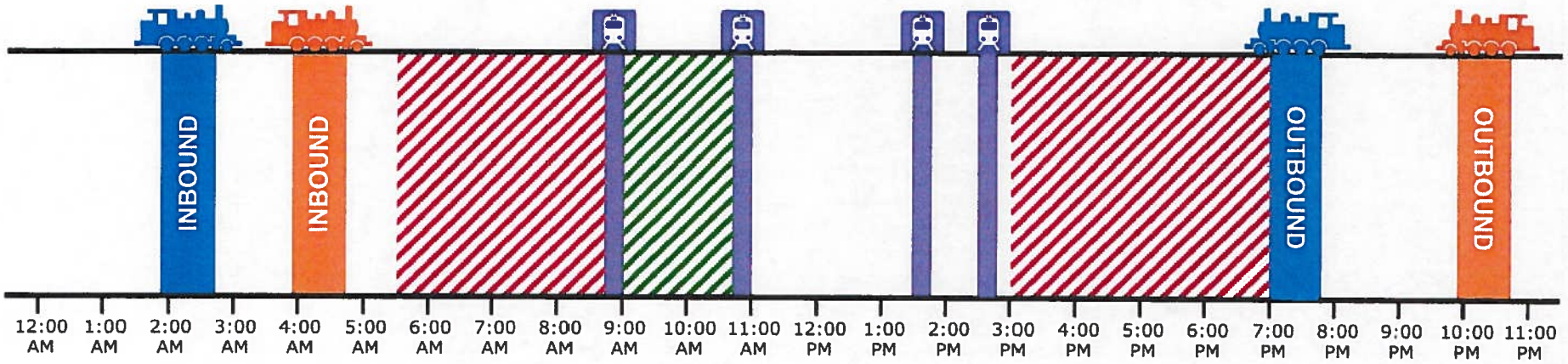


Rail Segments in Central San Diego



Attachment B

Typical Rail Operations within San Diego Subdivision, South of Santa Fe Depot



- Manifest Train
- Vehicle Train
- Coaster at MTS Storage Track between commute periods
- Operating Window for Daytime Freight Train
- Restricted To Passenger Trains Only

Appendix D

Port Master Plan Amendment associated with Balanced Plan

San Diego Unified Port District
Port Master Plan Amendment

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National City Balanced Plan

Existing/Proposed Plan
Text and Graphics

August 2021

Note: Text to be deleted shown ~~stricken~~ and text to be added shown <u>underlined</u>
Text in italics is for clarification only and is not part of the Plan Amendment.

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NATIONAL CITY BAYFRONT: Planning District 5

Precise Plan Concept

The National City Bayfront is an established and developed marine industrial area. Continued use and intensification of the marine related use is anticipated for the duration of the planning period. Substantial areas are currently used for lumber storage, wood products and vehicle storage, manufacturing and distribution, which are dependent on close proximity to the Port's deep-water wharves. The plan proposes improvements to the Port related road transportation network. In addition, new public access and water-oriented recreational, educational, and commercial uses are focused on the development of a pleasure craft marina of approximately 250 slips.

Land and Water Use Allocations

The National City Bayfront planning area contains a total of roughly 420 acres, consisting of 250 acres of land and 170 acres of water (Table 14). The Master Plan assigns most of the land to Marine Related Industrial and Marine Terminal use, with Commercial Recreation, Park and Recreational Boat Berthing located north of the Sweetwater Channel.

National City Bayfront Planning Subareas

The subareas are listed on Figure 16. The National City Marina District Balanced Land Use Plan (Balanced Plan) includes all of Subarea 58 and part of Subarea 55. The Balanced Plan proposes to reconfigure land uses for the maritime, commercial, and public uses in the Marina District to increase public recreational spaces and public access, increase commercial uses, and increase efficiencies for maritime uses. The Balanced Plan recommends expanding Pepper Park, adding numerous public access corridors, reconfiguring a portion of the marine terminal that is located adjacent to the Marina District, creating a contiguous commercial area, adding a new rail track, and realigning Marina Way to serve as the separation of maritime and commercial land uses.

Northern Industrial Area

The Northern Industrial Area is isolated from the water by the San Diego (32nd Street) Naval Station, which occupies all of the adjacent waterfront and forms the western and northern boundary of this subarea. The subarea contains a ship repair and lumber transport/storage yard. These uses, or similar ones, are expected to occupy this land into the foreseeable future.

Due to its distance from the water, its remoteness and its relatively small size, this subarea will remain a backup storage area for the marine terminal and other marine industries occupying water frontage. Permitted uses under the marine industrial designation might also include manufacturing, storage, transportation and distribution.

A new street section connecting Harbor Drive to Tidelands Avenue is proposed just north of this planning subarea. This street improvement will more directly link Harbor Drive with Tidelands Avenue; creating a north-south street to serve traffic in the National City waterfront area west of the I-5 freeway and enhancing access to the Civic Center freeway interchange.

Lumber Yards

The area in back of the National City Marine Terminal is used for storage, assembly and handling of lumber and wood products and other marine related industrial uses. A food cold storage locker is the only other use. These uses display the benefits of water linkage with the marine terminal and require a considerable amount of space. Other activities appropriate for this area, as well as Subareas 51 and 52, include wood preserving, manufacturing of wood products, wholesaling of building supplies, ice manufacture, food processing, petroleum storage, freight distribution and associated or similar uses.

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Industrial performance standards are encouraged, especially landscaping and appearance treatments along Tidelands Avenue; however, such standards for development must be consistent with the functional needs of the industrial area and individual operations.

If additional backup cargo storage area is required because of expansion of the marine terminal, this area could be utilized for this purpose. Quay Avenue, between Bay Marina Drive and 28th Street, 28th Street, west of Quay Avenue, and 32nd Street west of Tidelands Avenue may also be closed to accommodate additional marine related operations. Tidelands Avenue, between Bay Marina Drive and 32nd Street, may also be closed to increase operational operating efficiencies for marine related operations. A connector rail track may be constructed near the southeastern boundary of this subarea and would connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.

Southwest Corner

South of the present marine terminal is a fill area reserved on the Master Plan for Marine Related Industrial use. Current use is about half for industrial production and about half vacant.

As mentioned in the description of the Container Terminal subarea, the Master Plan envisions the extension of the apron wharf from the container crane along the Pierhead/Bulkhead Line to the Sweetwater Channel where it would follow the Bulkhead Line to the present Sweetwater Wharf.

Future use of the western parcel is envisioned as a shipyard or other marine industrial use. The eastern parcel could also be used for similar purposes. In any case, planning for this area favors large industries or activities which can utilize its unique attributes of deep water berthing, railroad and highway access, distance from residential neighborhoods, and ample space.

Sweetwater Wharf

Sweetwater Wharf designates that part of the National City Marine Terminal located on the Sweetwater Channel. It is linked administratively to the container terminal (Subarea 54). It has a 1,400-foot-long wharf and is used almost exclusively for landing shipments of lumber and vehicles. This use is planned to continue into the future with a possibility of other products being shipped through the Sweetwater Wharf.

~~*Launching Ramp*~~ *Marina District*

This subarea is located generally north and west of the marina and includes a mix of public recreation, maritime/industrial related, and commercial recreation uses.

~~This~~ The public recreation area includes a park lawn area, a public fishing pier, a boat launch ramp and a parking area serving the entire site. The park provides picnic tables, a shoreline promenade with seating, open and shaded lawn areas and walkways leading to the fishing pier. A 2.5-acre park expansion is proposed – approximately 1.5 acres to the northwest and approximately 1-acre to the north and east. In order to accommodate the additional park space, the adjacent marine terminal area will be reconfigured to the northeast, and some of the existing Commercial Recreation-designated areas will be redesignated as Park/Plaza. The entrance to the park would be relocated eastward. The new park space may be designed independently, or in conjunction with a reconfiguration of the existing park. After expansion, the park may include a mixture of hardscape and landscape, as well as a community stage/kiosk, and an interactive fountain/ splashground. The park will enhance pedestrian and visual access to the waterfront and create a pleasant area for event gatherings and public activities. A recreational facility may be included within the park. If such facility is included in the park, it will be available for the general public at least 85% of the year, and the remaining (up to 15%) portion of the year the facility will be available for events or uses with limited public access shall not exceed more than 15% of the year and shall be distributed throughout the

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year and not occur only in the summer months.

Marina Way is proposed to be realigned to form a curve that rounds out when traveling toward southwest through the Marina District and would connect to the new park entrance. The commercial recreation area within the Marina District is proposed to be expanded and made more contiguous through the realignment of Marina Way and closure of 32nd Street east of Tidelands Avenue and the closure of the secondary park access to vehicles Public access corridors will be provided within the existing alignments of Marina Way and 32nd Street and will allow for visual, pedestrian, bicycle, and emergency access. The public access corridor within the existing alignment of Marina Way will provide north-south access to the Marina District and will range from 20-40 feet wide and be centered on the existing 20-foot-wide view corridor at the marina. The public access corridor within the existing alignment of 32nd Street will range from 14-40 feet wide. No vehicular parking, permanent structures, or other impediments to access are allowed within the public access corridors.

The commercial recreation area is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the existing marina and attendant commercial facilities. Landside planned development in this area includes an RV park with up to 135 sites; up to 60 modular cabins south (on the existing jetty) and east of the marina; an approximately 10,000-square-foot, 2-story administration/ recreation building; and an approximately 4,000-square-foot 2-story support building with restrooms, laundry facilities and staff support services. Waterside planned development in this area includes the addition of up to 20 moorings in the Sweetwater Channel; a new floating dock with up to 30 fingers in the Sweetwater Channel, south of the jetty; and a new dock in the marina basin, north of the jetty, for additional boats to be side-tied. Based on market demand, up to four hotels may also be constructed within the commercial recreation area – a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. In order to accommodate the hotels, it may be necessary to decrease the size of the RV park by approximately 65 RV spaces. A portion of the Bayshore Bikeway may traverse the commercial recreation area.

Existing buoys located in the Sweetwater Channel, south of the marina, may be relocated further east to allow non-motorized watercraft to access the area farther to the east in the channel. The buoys would be placed so as to prevent encroachment into the adjacent Wildlife Refuge areas, north and south of the channel.

Due to its proximity to the Wildlife Refuge/Paradise Marsh, a habitat buffer (designated with an Open Space land use designation) is located along the eastern edge of the commercial recreation area. The habitat buffer is 100 feet wide and is measured from the delineated wetlands west of the Wildlife Refuge/Paradise Marsh. In addition, there is a 200-foot-wide building setback from the western edge of the Wildlife Refuge/Paradise Marsh. Vehicular parking and low-impact non-motorized uses such as public access trails and bike paths can be located between the habitat buffer and building setback.

Uses in the commercial recreation area could include a restaurant or coffee shop, convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.

The boat launch has 8 lanes for boating access, a restroom and a dock facility on the Sweetwater Channel. An aquatic center facility including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements is located east of the boat launch. Public restrooms are located northwest of the boat launch and are accessible to the Pepper Park, launch ramp, and landing users. Continued heavy use of this public recreation area is anticipated for active yachting, instructional

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turf play and the more passive activities of fishing, picnicking and sightseeing.

Anchorage A-8, the Sweetwater Small Craft Anchorage, occupies a water area of approximately 200 acres. Although sheltered from the waves of the open ocean by the Silver Strand, the anchorage is exposed to long fetches inside the harbor. Approximately 250 vessels at single swing point anchorage using vessel ground tackle can be accommodated; however, use shall be incremental, the first phase to provide for up to 100 vessels, with any additional 100 increments to be subject to further public hearings and consultations with District member cities. About 30 percent of the spaces are to be reserved for short-term use by transient ocean cruising vessels. The boundaries of the anchorage are proposed to be identified by marker buoys and shown on bay charts. Control over the anchorage is to be exercised by the Port District. The existing National City small craft launching ramp provides landing and shoreside support services consisting of automobile parking, restrooms, public telephone, drinking water, trash disposal, and docking facilities.

~~***Marina***~~

~~The commercial recreation area shown on the Planning District Map is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the adjacent marina and attendant commercial facilities. Uses could include a restaurant or coffee shop, convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.~~

~~The location and design of the commercial area, and possibly even its market feasibility, is dependent on improved access to Interstate 5. The additional traffic and increased activity in this presently isolated property would greatly enhance its attractiveness for commercial enterprise.~~

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TABLE 14: Precise Plan Land and Water Use Allocation
NATIONAL CITY: PLANNING DISTRICT 5

LAND USE	*ACRES*	*WATER USE*	*ACRES*	*TOTAL ACRES*	*% of TOTAL*
COMMERCIAL	~~7.9~~15.4	COMMERCIAL	~~14.6~~17.5	~~22.5~~32.9	~~5~~7%
Commercial Recreation	~~7.9~~15.4	Recreational Boat Berthing	~~14.6~~17.5		
INDUSTRIAL	~~237.7~~236.7	INDUSTRIAL	21.6	~~259.3~~258.3	~~59~~58%
Marine Related Industrial	~~153.7~~153.3	Specialized Berthing	7.9		
Marine Terminal	~~84.0~~83.4	Terminal Berthing	13.7		
PUBLIC RECREATION	~~4.2~~10.3	PUBLIC RECREATION	~~2.2~~1.4	~~6.4~~11.7	~~1~~3%
Open Space	2.6	Open Bay / Water	~~2.2~~1.4		
Park	~~4.2~~7.7				
PUBLIC FACILITIES	~~23.4~~17.3	PUBLIC FACILITIES	11.9	~~35.3~~29.2	~~8~~6%
Streets	~~23.4~~17.3	Boat Navigation Corridor	7.0		
		Ship Navigation Corridor	4.9		
		MILITARY	116.7	116.7	~~27~~26%
		Navy Ship Berthing	116.7		
TOTAL LAND AREA	**~~273.2~~279.7**	**TOTAL WATER AREA**	**~~167.0~~169.1**		

PRECISE PLAN LAND AND WATER ACREAGE TOTAL **~~440.2~~448.8** **100%**

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TABLE 15: Project List

NATIONAL CITY BAYFRONT: PLANNING DISTRICT 5

	SUBAREA ↓	DEVELOPER ↓	APPEALABLE ↓	FISCAL YEAR
1. CONTAINER WHARF: Extend rock revetment and apron wharf 1,000 feet. Excavate, drive support piles, place rock, construct wharf.	54	P	N	1988-99
2. COMPLETION OF TERMINAL WHARF: Extend rock revetment and apron wharf an additional 2,400 feet, to Sweetwater Wharf. Construct as above.	56	P	N	1998-99
3. SECOND CONTAINER CRANE: Install second container crane, miscellaneous equipment. Pave backup area.	54	P	N	1998-99
4. CONTAINER TRACK EXTENSION: Convert 500 feet of Berth 3 to a container wharf.	54	P	N	1998-99
5. MECHANICAL BULKLOADER: Install bulkloader, paving, railroad siding, conveyors, unloading pit.	54	P	N	1997-98
6. SHIPYARD: Construct shipyard facilities, buildings, cranes, dry-dock.	56	T	N	1993-94
7. COMMERCIAL SUPPORT AREA: Construct buildings, parking, landscape.	58	T	Y	1995-96
8. MECHANICAL UNLOADER: Erect cargo handling equipment.	54	P	N	1995-96
9. CONNECTING STREET: Linking Harbor Drive to Tidelands Avenue north of the Civic Center Drive.	51	P	N	1993-97
10. PEPPER PARK PUBLIC RESTROOMS: Demolish and remove existing structure, drinking fountain, public pay phone, and landscape materials. Construct new ADA compliant restroom facility, drinking fountain, public pay phone, walkways and landscape improvements.	58	P	N	2006-08
11. RECREATIONAL MARINA: Install marina docks, utility services, shoreside structures, walkways, landscape improvements and parking area; expand marina facilities by adding up to 20 moorings in the Sweetwater Channel, a new floating dock with up to 30 fingers in the Sweetwater Channel, and a new dock in the marina basin (north of the jetty).	~~59~~ 58	T	Y	1994-95; 2022-2024
12. AQUATIC CENTER: Construct and operate aquatic center facility, including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements. Remove temporary classroom and storage facility and return pavement area to parking use.	58	T	Y	2006-08
13. CLOSE PORTIONS OF QUAY AVENUE, 28TH STREET, 32ND STREET: Close Quay Avenue, between Bay Marina Drive and 28th Street, 28th Street, west of Quay Avenue, and 32nd Street west of Tidelands Avenue to accommodate additional marine terminal operations and improve efficiencies with these operations.	55	T	N	2016-2017
14. BALANCED PLAN PUBLIC IMPROVEMENTS: (a) expand Pepper Park to the northwest, north and east, and include a mixture of hardscape and landscape, and features such as a community stage/kiosk and an interactive fountain/splashground; (b) relocate park entrance to the east; (c) realign Marina Way to form a curve that rounds out when traveling southwest	58	P	Y*	2022-2024

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through the Marina District subarea and create a public access corridor along the former Marina Way alignment (generally north-south alignment); (d) close 32nd Street east of Tidelands Avenue and create public access corridor along that former 32nd Street alignment (generally east-east alignment); (e) close southern half of Goesno Place to create a public access corridor.				
15. CLOSE PORTIONS OF TIDELANDS AVENUE, BETWEEN BAY MARINA DRIVE AND 32ND STREET: Close Tidelands Avenue, between Bay Marina Drive and 32nd Street to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations. Closure may be phased, with closure of Tidelands Avenue, between 28th Street and 32nd Street, occurring first; and closure of Tidelands Avenue, between Bay Marina Drive and 28th Street occurring second.	55	T	Y	2022-2024
16. CLOSE PORTION OF 28TH STREET, BETWEEN QUAY AVENUE AND TIDELANDS AVENUE: Close 28th Street, between Quay Avenue and Tidelands Avenue to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations.	55	T	N	2024
17. CONSTRUCT AND OPERATE CONNECTOR RAIL TRACK: Construct a connector rail track near the southeastern boundary of Subarea 55 to connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.	55	T	N	2024
18. OVERNIGHT ACCOMMODATIONS: Construct and operate overnight accommodations, in the commercial recreation area of the Marina District subarea, in at least two phases. Phase 1 includes up to 135 RV sites, up to 60 modular cabins south (on the existing jetty) and east of the marina, and ancillary facilities; and Phase 2, which would be constructed based on market demand, includes up to four hotels - a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. In order to accommodate the hotels, it may be necessary to decrease the size of the RV park by approximately 65 RV spaces.	58	T	Y	2022-2026

P- Port District N- No T- Tenant Y- Yes

* The only appealable project is the realignment of Marina Way.

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DALBERGIA
MAIN STREET
HARBOR DRIVE
8TH STREET
9TH STREET
10TH STREET
11TH STREET
12TH STREET
13TH STREET
14TH STREET
15TH STREET
HOOVER AVE.
COOLIDGE AVE.
HARDING AVE.
WILSON AVE.
16TH STREET
17TH STREET
18TH STREET
30TH STREET
33RD STREET
INTERSTATE 5
McKINLEY AVE.
PARADISE CREEK
CLEVELAND AVE.
15TH STREET
16TH STREET
17TH STREET
20TH STREET
21ST STREET
22ND STREET
23RD STREET
HARRISON ST.
19TH STREET
HAFFLEY AVE.
24TH STREET
TIDELANDS AVENUE
BAY BOULEVARD
BAY MARINA DRIVE
CHULA VISTA
SWEETWATER CHANNEL
NATIONAL CITY
24TH STREET
32ND STREET
BAY AVENUE
TERMINAL AVENUE
U.S. NAVAL STATION
SAN DIEGO BAY
24TH STREET MARINE TERMINAL
SAN DIEGO
NATIONAL CITY

Land COMMERCIAL Water

- Commercial Recreation
- Recreational Boat Berthing

INDUSTRIAL

- Marine Terminal
- Marine Related
- Terminal Berthing
- Specialized Berthing

PUBLIC RECREATION

- Park/Plaza
- Open Space
- Public Access
- Vista Area
- Promenade
- Open Bay
- Public Fishing Pier
- Boat Launching Ramp

Land PUBLIC FACILITIES Water

- Comfort Station
- Anchorage Landing
- Boat Navigation Corridor
- Ship Navigation Corridor
- Boat Anchorage

MILITARY Water

- Navy Ship Berthing

CITY OF NATIONAL CITY
CITY OF SAN DIEGO
CITY OF CORONADO

- City Boundaries
- Mean High Tide Line
- US Pierhead Line
- US Bulkhead Line
- Combined US Pierhead/Bulkhead Line
- S.D.U.P.D. Limits
- Lease Line
- Railroad
- Coastal Zone Boundaries

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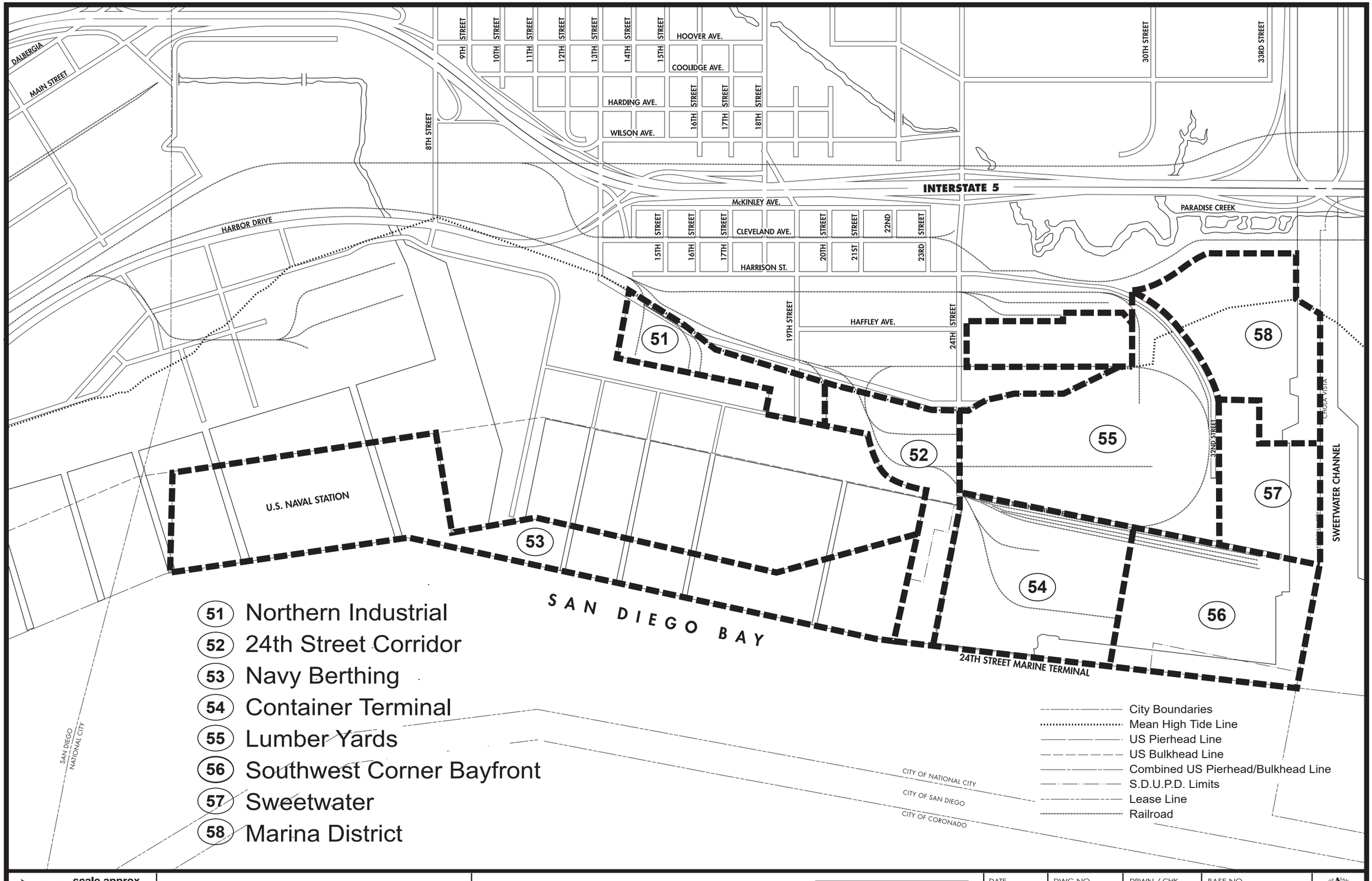
N Land Use Planning
scale approx. 0 200' 400'

Planning District 5
NATIONAL CITY BAYFRONT

PRECISE PLAN

FIGURE 15

DATE	DWG NO.	DRWN / CHK	BASE NO.



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scale approx.
0 200' 400'
Land Use Planning

Planning District 5
NATIONAL CITY BAYFRONT

Planning Subareas

FIGURE 16

DATE	DWG NO.	DRWN / CHK	BASE NO.

Appendix Da

Draft National City Balanced Plan Port Master Plan Amendment [New]

Text changes from August 2021 are shown in ~~single strikeout~~/single underline
Proposed text changes in September 2022 are shown in ~~double strikeout~~/double underline

San Diego Unified Port District
Port Master Plan Amendment

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National City Balanced Plan

Existing/Proposed Plan
Text and Graphics

~~August 2021~~September 2022

Note: Text to be deleted shown ~~stricken~~ and text to be added shown underlined
Text in italics is for clarification only and is not part of the Plan Amendment.

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NATIONAL CITY BAYFRONT: Planning District 5

Precise Plan Concept

The National City Bayfront is an established and developed marine industrial area and recreational area of the waterfront. Continued use and intensification of the marine related and recreational uses is anticipated for the duration of the near- and long-term planning period. Substantial areas are currently used for lumber storage, wood products and vehicle storage, manufacturing and distribution, which are dependent on close proximity to the Port's deep-water wharves. The plan proposes improvements to the Port related road transportation network and expansion of current recreational assets. In addition, new public access and water-oriented recreational, educational, and commercial uses are focused on the development of a pleasure craft marina of approximately 250 slips, RV park followed by hotel development, and an expansion of Pepper Park.

Land and Water Use Allocations

The National City Bayfront planning area contains a total of roughly 420 acres, consisting of 250 acres of land and 170 acres of water (Table 14). The Master Plan assigns most of the land to Marine Related Industrial and Marine Terminal use, with Commercial Recreation, Park and Recreational Boat Berthing located north of the Sweetwater Channel.

National City Bayfront Planning Subareas

The subareas are listed on Figure 16. The National City Marina District Balanced Land Use Plan (Balanced Plan) includes all of Subarea 58 and part of Subarea 55. The Balanced Plan ~~proposes to~~ reconfigures land uses to enhance ~~for the~~ maritime commerce, commercial recreational, and public access uses in the Marina District. The Balanced Plan ~~to increase~~ expands public recreational spaces and public access by ~~, increase~~ increasing the ~~commercial uses, and increase~~ efficiencies for current and future maritime uses. Implementation of these efficiencies allows the ~~The~~ Balanced Plan ~~recommends~~ to expand~~ing~~ Pepper Park~~,~~ and add~~ing~~ numerous public access corridors~~;~~, and by reconfiguring a portion of the marine terminal that is located adjacent to the Marina District, the Balanced Plan create~~s~~~~ing~~ a contiguous commercial area, allows for adding a new rail track, ~~and~~ realigning Marina Way, and adding dry boat storage between the realigned Marina Way and new rail track. The Balanced Plan provides for the realigned Marina Way and the development of a new dry boat storage facility that ~~to~~ serve as ~~the~~ a separation between of ~~maritime~~ marine related industrial uses and commercial land uses.

Northern Industrial Area

The Northern Industrial Area is isolated from the water by the San Diego (32nd Street) Naval Station, which occupies all of the adjacent waterfront and forms the western and northern boundary of this subarea. The subarea contains a ship repair and lumber transport/storage yard. These uses, or similar ones, are expected to occupy this land into the foreseeable future.

Due to its distance from the water, its remoteness and its relatively small size, this subarea will remain a backup storage area for the marine terminal and other marine industries occupying water frontage. Permitted uses under the marine industrial designation might also include manufacturing, storage, transportation and distribution.

A new street section connecting Harbor Drive to Tidelands Avenue is proposed just north of this planning subarea. This street improvement will more directly link Harbor Drive with Tidelands Avenue; creating a north-south street to serve traffic in the National City waterfront area west of the I-5 freeway and enhancing access to the Civic Center freeway interchange.

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Lumber Yards

In areas further ~~The area in~~ back from ~~of~~ the National City Marine Terminal the current uses include areas for ~~is used for~~ storage, assembly and handling of lumber and wood products and other marine related industrial uses. A food cold storage facility ~~locker~~ is the only other use. These uses display the benefits of water linkage with the marine terminal and require a considerable amount of space. Other activities appropriate for this area, as well as Subareas 51 and 52, include wood preserving, manufacturing of wood products, wholesaling of building supplies, ice manufacture, food processing, petroleum storage, freight distribution and associated or similar uses. Industrial performance standards are encouraged, especially landscaping and appearance treatments along Tidelands Avenue; however, such standards for development must be consistent with the functional needs of the industrial area and individual operations.

If additional backup cargo storage area is required because of expansion of the marine terminal, this subarea could be utilized for this purpose. Quay Avenue, between Bay Marina Drive (formerly 24th Street) and 28th Street, 28th Street, west of Quay Avenue, and 32nd Street west of Tidelands Avenue may also be closed to accommodate additional marine related operations. To provide for maritime operational flexibility, Tidelands Avenue, between Bay Marina Drive and 32nd Street, as well as 28th Street between Quay Avenue and Tidelands Avenue, may also be closed to increase ~~operational~~ operating efficiencies for marine related operations; however, if the District, in its discretion, determines that tenant or customer access through the road closures area is needed, such access shall be provided.

A connector rail track may be constructed near the southeastern boundary of this subarea and would connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.

Southwest Corner

South of the present marine terminal is a fill area reserved on the Master Plan for Marine Related Industrial use. ~~Current use is about half for i~~Industrial production currently occupies ~~and~~ about half of the area while the other areas are currently vacant.

As the Plan relates to ~~mentioned in the description of~~ the Container Terminal subarea, the Master Plan envisions the extension of the apron wharf ~~from the container crane~~ along the Pierhead/Bulkhead Line to the Sweetwater Channel where it would follow the U.S. Bulkhead Line to the present day Sweetwater Wharf.

Future use of the western parcel may be ~~is~~ envisioned as a shipyard or other marine industrial use. The eastern parcel could also be used for similar purposes. Generally, ~~In any case, planning for~~ this area is well suited for ~~favors~~ large marine industries or activities which can utilize its unique attributes of deep-water berthing, railroad and highway access, distance from residential neighborhoods, and ample cargo space.

Sweetwater Wharf

The Sweetwater Wharf is ~~designates~~ the ~~that~~ part of the National City Marine Terminal that is located on the Sweetwater Channel. This area ~~It~~ is linked operationally ~~administratively~~ to the container terminal (Subarea 54). It currently has a 1,400-foot-long wharf which ~~and~~ is used almost exclusively for landing shipments of lumber and vehicles. This use is planned to continue into the future with a possibility of other products being shipped through the Sweetwater Wharf.

~~Launching Ramp~~ Marina District

This subarea is located generally north and west of the marina and includes a mix of public recreation, maritime/industrial related, and commercial recreation uses.

~~This~~ The public recreation area includes a park lawn area, a public fishing pier, a boat launch ramp and a parking area serving the park uses

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~~entire site~~. The park provides picnic tables, a shoreline promenade with seating, open and shaded lawn areas and walkways leading to the fishing pier. ~~A~~The 2.5-acre park expansion is ~~proposed –~~ approximately 1.5 acres to the northwest and approximately 1-acre to the north and east. In order to accommodate the additional park space, the adjacent marine terminal area will be reconfigured to the northeast, and some of the existing Commercial Recreation-designated areas will be redesignated as Park/Plaza. An approximately 24-foot-wide area west of the marina basin will remain designated with a Commercial Recreation land use and will provide a boat access path combined with additional public access associated with an adjacent pier platform and nearby dry boat storage operation. The current entrance to the park would be relocated eastward. The new expanded park space ~~may~~ will be designed ~~independently, or~~ in conjunction with a possible reconfiguration of the existing park. After expansion, the park by way of example may include a mixture of hardscape and landscape~~,~~ as well as a community stage/kiosk, and an interactive fountain/splashground. The park will enhance pedestrian and visual access to the waterfront and create an inviting ~~pleasant~~ area for event gatherings and public activities. ~~A recreational facility may be included within the park. If such facility is included in the park, it will be available for the general public at least 85% of the year, and the remaining (up to 15%) portion of the year the facility will be available for events or uses with limited public access shall not exceed more than 15% of the year and shall be distributed/throughout the year and not occur only in the summer months.~~

Marina Way is proposed to be realigned ~~to~~ and forms a curve that rounds out when traveling toward the southwest through the Marina District and then ~~would~~ connects to the new park entrance. The commercial recreation area within the Marina District is proposed to be expanded and made ~~more~~ contiguous through the realignment of Marina Way and closure of 32nd Street east of Tidelands Avenue and the closure of the secondary park access to vehicles. Public access and view corridors ~~will be~~ are provided within the existing alignments of Marina Way and 32nd Street and will allow for visual, pedestrian, bicycle, and emergency access. The public access corridor within the existing alignment of Marina Way will provide north-south access to the Marina District and will range from 20-40 feet wide and be centered on the existing 20-foot-wide view corridor at the marina. The public access corridor within the existing alignment of 32nd Street will range from 14-40 feet wide. No vehicular parking, permanent structures, or other barriers~~ impediments~~ to access are allowed within the north-south public access and view corridor~~s~~.

The commercial recreation area is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the existing marina and attendant commercial facilities. Landside planned development in this area includes an RV park with up to 135 sites; up to 60 modular cabins south (on or near the existing jetty) and east of the marina; an approximately 10,000-square-foot, 2-story administration/ recreation building; and an approximately 4,000-square-foot 2-story support building with restrooms, laundry facilities and staff support services. In later development phases, the RV park is reduced or eliminated to accommodate new hotel development.

Dry boat storage, for up to 210 boats, is proposed west of the realigned Marina Way, between the roadway and Subarea 55. The dry boat storage racks would have a maximum height of 65 feet and the facility also includes an approximately 4,000-square-foot maintenance building and an approximately 8,200-square-foot maintenance yard. An approximately 4,400-square-foot pier platform will be located immediately northeast of the aquatic center, with floating docks and two gangways. The pier platform and gangways will be used to transfer boats from the dry boat storage and place boats into the Sweetwater Channel; and then to retrieve the boats from the Sweetwater Channel and place them back into the dry boat storage facility. When the pier platform is not in use by the dry boat storage facility, it would be open to the public for viewing opportunities. An approximately 8-foot-wide waterside promenade (located east of the existing marina parking curb) plus a 24-foot-wide access pathway will be located west of the marina basin. The access pathway will serve as the path of travel to and from the dry

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boat storage facility to and from the pier platform. Immediately west of that access pathway is the expanded Pepper Park. The 24-foot-wide access pathway will include design features to provide strong visual connections (e.g., pavement treatments) to the adjacent expanded area of Pepper Park. When the access pathway is not being utilized for dry boat storage operations, it would be open and accessible to the public. For safety reasons during dry boat storage operations, access barriers would be deployed while the boats are in transit to and from the pier platform and then reopened after the launching equipment is returned to the boat storage facility.

To enhance public access to the Bay, ~~Waterside~~ planned development in this area includes the addition of up to 20 moorings in the Sweetwater Channel; a new floating dock with up to 30 fingers in the Sweetwater Channel, south of the jetty; and a new dock in the marina basin, north of the jetty, for additional boats to be side-tied. As the National City hotel ~~Based on~~ market demand increases over time, up to four hotels may also be constructed in various phases within the commercial recreation area. It is projected that hotels could include: ~~–~~ a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. ~~In order to accommodate the hotels, it~~ It ~~may~~ will be necessary to decrease the size of the RV park by approximately 65 RV spaces to accommodate the hotels. A portion of the Bayshore Bikeway may traverse the commercial recreation area.

Existing buoys located in the Sweetwater Channel, south of the marina, may be relocated further east to allow non-motorized watercraft to access the area farther to the east in the channel. The buoys would be placed ~~so as~~ to prevent human and domestic animal encroachment into the adjacent Wildlife Refuge areas, both in the north and south areas of the channel.

Due to its proximity to the Wildlife Refuge/Paradise Marsh, a habitat buffer (designated with an Open Space land use designation) ~~is~~ will be located along the eastern edge of the commercial recreation area. The habitat buffer ~~is~~ will be 100 feet wide ~~and is~~ measured from the delineated wetlands west of the Wildlife Refuge/Paradise Marsh. In addition, it is required that there will be ~~there is~~ a 200-foot-wide building setback from the western edge of the Wildlife Refuge/Paradise Marsh. However, ~~V~~vehicular parking and low-impact non-motorized uses such as public access trails and bike paths are allowed ~~can be located~~ between the habitat buffer and building setback.

Uses in the commercial recreation area allows for ~~could include a~~ restaurants and/or coffee shops, convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.

The current boat launch has 8 lanes for boating access, a restroom and a dock facility on the Sweetwater Channel. An aquatic center facility including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements is located east of the boat launch. Public restrooms are located northwest of the boat launch and are accessible to the Pepper Park, launch ramp, and landing users. Continued heavy use of this public recreation area is anticipated for active yachting, instructional turf play and the more passive activities of fishing, picnicking and sightseeing, and public gatherings.

Anchorage A-8, the Sweetwater Small Craft Anchorage, occupies a water area of approximately 200 acres. Although sheltered from the waves of the open ocean by the Silver Strand, the anchorage is exposed to long fetches inside the harbor. Approximately 250 vessels at single swing point anchorage using vessel ground tackle can be accommodated; however, use shall be incremental, the first phase to provide for up to 100 vessels, with any additional 100 increments to be subject to further public hearings and consultations with District member cities. About 30 percent of the spaces are to be reserved for short-term use by transient ocean cruising vessels. The boundaries of the anchorage are proposed to be identified by marker buoys and shown on

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bay charts. Control over the anchorage is to be exercised by the Port District. The existing National City small craft launching ramp provides landing and shoreside support services consisting of automobile parking, restrooms, public telephone, drinking water, trash disposal, and docking facilities.

~~*Marina*~~

~~The commercial recreation area shown on the Planning District Map is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the adjacent marina and attendant commercial facilities. Uses could include a restaurant or coffee shop, convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.~~

~~The location and design of the commercial area, and possibly even its market feasibility, is dependent on improved access to Interstate 5. The additional traffic and increased activity in this presently isolated property would greatly enhance its attractiveness for commercial enterprise.~~

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TABLE 14: Precise Plan Land and Water Use Allocation
NATIONAL CITY: PLANNING DISTRICT 5

LAND USE	*ACRES*	*WATER USE*	*ACRES*	*TOTAL ACRES*	*% of TOTAL*
COMMERCIAL	~~7.9~~~~15.4~~16.0	COMMERCIAL	~~14.6~~17.5	~~22.5~~~~32.9~~33.5	~~5~~7%
Commercial Recreation	~~7.9~~~~15.4~~16.0	Recreational Boat Berthing	~~14.6~~17.5		
INDUSTRIAL	~~237.7~~236.7	INDUSTRIAL	21.6	~~259.3~~258.3	~~59~~58%
Marine Related Industrial	~~153.7~~153.3	Specialized Berthing	7.9		
Marine Terminal	~~84.0~~83.4	Terminal Berthing	13.7		
PUBLIC RECREATION	~~4.2~~10.3	PUBLIC RECREATION	~~2.2~~1.4	~~6.4~~11.7	~~1~~3%
Open Space	2.6	Open Bay / Water	~~2.2~~1.4		
Park	~~4.2~~7.7				
PUBLIC FACILITIES	~~23.4~~~~17.3~~16.7	PUBLIC FACILITIES	11.9	~~35.3~~~~29.2~~28.6	~~8~~6%
Streets	~~23.4~~~~17.3~~16.7	Boat Navigation Corridor	7.0		
		Ship Navigation Corridor	4.9		
		MILITARY	116.7	116.7	~~27~~26%
		Navy Ship Berthing	116.7		
TOTAL LAND AREA	**~~273.2~~279.7**	**TOTAL WATER AREA**	**~~167.0~~169.1**		

PRECISE PLAN LAND AND WATER ACREAGE TOTAL **~~440.2~~448.8** **100%**

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TABLE 15: Project List

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8. MECHANICAL UNLOADER: Erect cargo handling equipment.	54	P	N	1995-96
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11. RECREATIONAL MARINA: Install marina docks, utility services, shoreside structures, walkways, landscape improvements and parking area; expand marina facilities by adding up to 20 moorings in the Sweetwater Channel, a new floating dock with up to 30 fingers in the Sweetwater Channel, and a new dock in the marina basin (north of the jetty).	~~59~~ 58	T	Y	1994-95; 2022-2024
12. AQUATIC CENTER: Construct and operate aquatic center facility, including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements. Remove temporary classroom and storage facility and return pavement area to parking use.	58	T	Y	2006-08
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through the Marina District subarea and create a public access corridor along the former Marina Way alignment (generally north-south alignment); (d) close 32nd Street east of Tidelands Avenue and create public access corridor along that former 32nd Street alignment (generally east-east alignment); (e) close southern half of Goesno Place to create a public access corridor.				
15. CLOSE PORTIONS OF TIDELANDS AVENUE, BETWEEN BAY MARINA DRIVE AND 32ND STREET: Close Tidelands Avenue, between Bay Marina Drive and 32nd Street to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations. Closure may be phased, with closure of Tidelands Avenue, between 28th Street and 32nd Street, occurring first; and closure of Tidelands Avenue, between Bay Marina Drive and 28th Street occurring second.	55	T	Y	2022-2024
16. CLOSE PORTION OF 28TH STREET, BETWEEN QUAY AVENUE AND TIDELANDS AVENUE: Close 28th Street, between Quay Avenue and Tidelands Avenue to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations.	55	T	N	2024
17. CONSTRUCT AND OPERATE CONNECTOR RAIL TRACK: Construct a connector rail track near the southeastern boundary of Subarea 55 to connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.	55	T	N	2024
18. OVERNIGHT ACCOMMODATIONS: Construct and operate overnight accommodations, in the commercial recreation area of the Marina District subarea, in at least two phases. Phase 1 includes up to 135 RV sites, up to 60 modular cabins south (on the existing jetty) and east of the marina, and ancillary facilities; and Phase 2, which would be constructed based on market demand, includes up to four hotels - a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. ~~In order to accommodate the hotels, it~~ It will ~~may~~ be necessary to decrease the size of the RV park by approximately 65 RV spaces to accommodate the hotels.	58	T	Y	2022-2026
19. DRY BOAT STORAGE FACILITY: Construct and operate an approximately 40,000-square-foot dry boat storage facility west of the realigned Marina Way and Subarea 55, and associated approximately 4,400-square-foot pier platform, floating docks, and gangways northeast of the aquatic center. The dry boat storage facility, which can store up to 210 boats, will store the boats in racks housed within up to five separate structures, each with a maximum height of 65 feet. An approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard, both related to the dry boat storage, are proposed to be located northeast of the storage racks. When the pier platform is not being used for placing dry boat storage boats in the water or removing them from the water, it would be open to the public. An approximately 8-foot-wide waterside promenade (located east of the existing marina parking curb) plus a 24-foot-wide access pathway will be located west of the marina basin. The access pathway will serve as the path of travel to and from the dry boat storage facility to and from the pier platform. Immediately west of that access pathway is the expanded Pepper Park. When the 24-foot-wide access pathway is not being utilized for dry boat storage operations, it would be open and accessible to the public.	58	T	Y	2022-2026

P- Port District N- No T- Tenant Y- Yes

* The only appealable project is the realignment of Marina Way.

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DALBERGIA
MAIN STREET
HARBOR DRIVE
8TH STREET
9TH STREET
10TH STREET
11TH STREET
12TH STREET
13TH STREET
14TH STREET
15TH STREET
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COOLIDGE AVE.
HARDING AVE.
WILSON AVE.
16TH STREET
17TH STREET
18TH STREET
30TH STREET
33RD STREET
INTERSTATE 5
McKINLEY AVE.
PARADISE CREEK
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21ST STREET
22ND STREET
23RD STREET
HARRISON ST.
MARINA WAY
19TH STREET
HAFFLEY AVE.
24TH STREET
TIDELANDS AVE
CHULA VISTA
SWEETWATER CHANNEL
U.S. NAVAL STATION
SAN DIEGO BAY
24TH STREET MARINE TERMINAL
SAN DIEGO NATIONAL CITY
CITY OF NATIONAL CITY
CITY OF SAN DIEGO
CITY OF CORONADO
A8

Land **COMMERCIAL** Water

- Commercial Recreation
- Recreational Boat Berthing

INDUSTRIAL

- Marine Terminal
- Marine Related
- Terminal Berthing
- Specialized Berthing

PUBLIC RECREATION

- Park/Plaza
- Open Space
- Public Access
- Vista Area
- Promenade
- Open Bay
- Public Fishing Pier
- Boat Launching Ramp

Land **PUBLIC FACILITIES** Water

- Comfort Station
- Anchorage Landing
- Boat Navigation Corridor
- Ship Navigation Corridor
- Boat Anchorage

MILITARY Water

- Navy Ship Berthing

- City Boundaries
- Mean High Tide Line
- US Pierhead Line
- US Bulkhead Line
- Combined US Pierhead/Bulkhead Line
- S.D.U.P.D. Limits
- Lease Line
- Railroad
- Coastal Zone Boundaries

N Land Use Planning

scale approx. 0 200' 400'

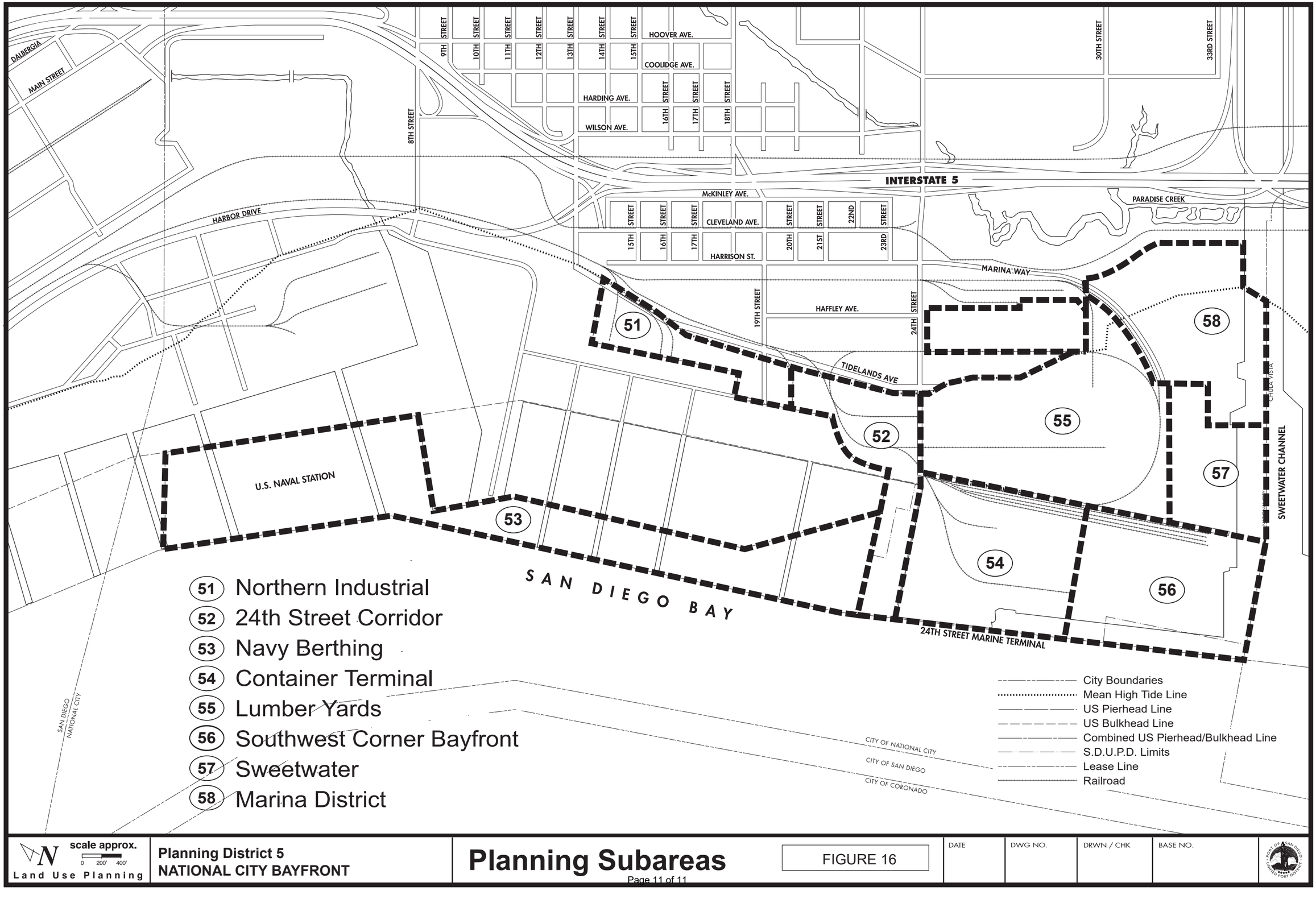
Planning District 5
NATIONAL CITY BAYFRONT

PRECISE PLAN

FIGURE 15

DATE	DWG NO.	DRWN / CHK	BASE NO.

PORT OF SAN DIEGO UNITED PORT DISTRICT



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scale approx.
0 200' 400'
Land Use Planning

Planning District 5
NATIONAL CITY BAYFRONT

Planning Subareas

FIGURE 16

DATE	DWG NO.	DRWN / CHK	BASE NO.

Appendix E

Port Master Plan Amendment associated with GB Capital Component

San Diego Unified Port District
Port Master Plan Amendment

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National City Balanced Plan w/GB Capital Modifications

Existing/Proposed Plan
Text and Graphics

August 2021

Note: Text to be deleted shown ~~stricken~~ and text to be added shown <u>underlined</u>
Text in italics is for clarification only and is not part of the Plan Amendment.

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NATIONAL CITY BAYFRONT: Planning District 5

Precise Plan Concept

The National City Bayfront is an established and developed marine industrial area. Continued use and intensification of the marine related use is anticipated for the duration of the planning period. Substantial areas are currently used for lumber storage, wood products and vehicle storage, manufacturing and distribution, which are dependent on close proximity to the Port's deep-water wharves. The plan proposes improvements to the Port related road transportation network. In addition, new public access and water-oriented recreational, educational, and commercial uses are focused on the development of a pleasure craft marina of approximately 250 slips.

Land and Water Use Allocations

The National City Bayfront planning area contains a total of roughly 420 acres, consisting of 250 acres of land and 170 acres of water (Table 14). The Master Plan assigns most of the land to Marine Related Industrial and Marine Terminal use, with Commercial Recreation, Park and Recreational Boat Berthing located north of the Sweetwater Channel.

National City Bayfront Planning Subareas

The subareas are listed on Figure 16. The National City Marina District Balanced Land Use Plan (Balanced Plan) includes all of Subarea 58 and part of Subarea 55. The Balanced Plan proposes to reconfigure land uses for the maritime, commercial, and public uses in the Marina District to increase public recreational spaces and public access, increase commercial uses, and increase efficiencies for maritime uses. The Balanced Plan recommends expanding Pepper Park, adding numerous public access corridors, reconfiguring a portion of the marine terminal that is located adjacent to the Marina District, creating a contiguous commercial area, adding a new rail track, realigning Marina Way, and adding dry boat storage between the realigned Marina Way and new rail track. The realigned Marina Way and the dry boat storage will serve as the separation of maritime and commercial land uses.

Northern Industrial Area

The Northern Industrial Area is isolated from the water by the San Diego (32nd Street) Naval Station, which occupies all of the adjacent waterfront and forms the western and northern boundary of this subarea. The subarea contains a ship repair and lumber transport/storage yard. These uses, or similar ones, are expected to occupy this land into the foreseeable future.

Due to its distance from the water, its remoteness and its relatively small size, this subarea will remain a backup storage area for the marine terminal and other marine industries occupying water frontage. Permitted uses under the marine industrial designation might also include manufacturing, storage, transportation and distribution.

A new street section connecting Harbor Drive to Tidelands Avenue is proposed just north of this planning subarea. This street improvement will more directly link Harbor Drive with Tidelands Avenue; creating a north-south street to serve traffic in the National City waterfront area west of the I-5 freeway and enhancing access to the Civic Center freeway interchange.

Lumber Yards

The area in back of the National City Marine Terminal is used for storage, assembly and handling of lumber and wood products and other marine related industrial uses. A food cold storage locker is the only other use. These uses display the benefits of water linkage with the marine terminal and require a considerable amount of space. Other activities appropriate for this area, as well as Subareas 51 and 52, include wood preserving, manufacturing of wood products, wholesaling

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of building supplies, ice manufacture, food processing, petroleum storage, freight distribution and associated or similar uses. Industrial performance standards are encouraged, especially landscaping and appearance treatments along Tidelands Avenue; however, such standards for development must be consistent with the functional needs of the industrial area and individual operations.

If additional backup cargo storage area is required because of expansion of the marine terminal, this area could be utilized for this purpose. Quay Avenue, between Bay Marina Drive and 28th Street, 28th Street, west of Quay Avenue, and 32nd Street west of Tidelands Avenue may also be closed to accommodate additional marine related operations. Tidelands Avenue, between Bay Marina Drive and 32nd Street, may also be closed to increase operational operating efficiencies for marine related operations. A connector rail track may be constructed near the southeastern boundary of this subarea and would connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.

Southwest Corner

South of the present marine terminal is a fill area reserved on the Master Plan for Marine Related Industrial use. Current use is about half for industrial production and about half vacant.

As mentioned in the description of the Container Terminal subarea, the Master Plan envisions the extension of the apron wharf from the container crane along the Pierhead/Bulkhead Line to the Sweetwater Channel where it would follow the Bulkhead Line to the present Sweetwater Wharf.

Future use of the western parcel is envisioned as a shipyard or other marine industrial use. The eastern parcel could also be used for similar purposes. In any case, planning for this area favors large industries or activities which can utilize its unique attributes of deep water berthing, railroad and highway access, distance from residential neighborhoods, and ample space.

Sweetwater Wharf

Sweetwater Wharf designates that part of the National City Marine Terminal located on the Sweetwater Channel. It is linked administratively to the container terminal (Subarea 54). It has a 1,400-foot-long wharf and is used almost exclusively for landing shipments of lumber and vehicles. This use is planned to continue into the future with a possibility of other products being shipped through the Sweetwater Wharf.

~~*Launching Ramp*~~ *Marina District*

This subarea is located generally north and west of the marina and includes a mix of public recreation, maritime/industrial related, and commercial recreation uses.

~~This~~ The public recreation area includes a park lawn area, a public fishing pier, a boat launch ramp and a parking area serving the entire site. The park provides picnic tables, a shoreline promenade with seating, open and shaded lawn areas and walkways leading to the fishing pier. A 2.5-acre park expansion is proposed – approximately 1.5 acres to the northwest and approximately 1-acre to the north and east. In order to accommodate the additional park space, the adjacent marine terminal area will be reconfigured to the northeast, and some of the existing Commercial Recreation-designated areas will be redesignated as Park/Plaza. The entrance to the park would be relocated eastward. The new park space may be designed independently, or in conjunction with a reconfiguration of the existing park. After expansion, the park may include a mixture of hardscape and landscape, as well as a community stage/kiosk, and an interactive fountain/ splashground. The park will enhance pedestrian and visual access to the waterfront and create a pleasant area for event gatherings and public activities. A recreational facility may be included within the park. If such facility is included in the park, it will be available for the general public at least 85% of the year, and the remaining (up to 15%) portion of the year the facility will be available for events or uses with limited public

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access shall not exceed more than 15% of the year and shall be distributed throughout the year and not occur only in the summer months.

Marina Way is proposed to be realigned to form a curve that rounds out when traveling toward southwest through the Marina District and would connect to the new park entrance. The commercial recreation area within the Marina District is proposed to be expanded and made more contiguous through the realignment of Marina Way and closure of 32nd Street east of Tidelands Avenue and the closure of the secondary park access to vehicles North-south view corridors, each with a minimum width of 24 feet, will be located along the new park entrance west of the marina. public access corridor will be provided within the existing alignment of Marina Way and will provide north-south access to and through the Marina District and will be approximately 24 feet wide, widening to 50 feet at the northernmost area of the corridor. This corridor would accommodate mostly pedestrians and bicycles but would also serve as a driveway for the occasional car or RV. An east-west view corridor with a minimum width of 24 feet will be located through the existing marina parking lot. This view corridor will have a parking area, drive aisle, and an approximately 6-foot-wide sidewalk.

The commercial recreation area is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the existing marina and attendant commercial facilities. Landside planned development in this area includes an RV park with up to 135 sites; up to 60 modular cabins south (on the existing jetty) and east of the marina; an approximately 10,000-square-foot, 2-story administration/ recreation building; and an approximately 4,000-square-foot 2-story support building with restrooms, laundry facilities and staff support services. Dry boat storage, for up to 210 boats, is proposed west of the realigned Marina Way, between the roadway and Subarea 55. The dry boat storage racks have a maximum height of 65 feet and the facility also includes an approximately 4,000-square-foot maintenance building and an approximately 8,200-square-foot maintenance yard. An approximately 4,400-square-foot pier platform will be located immediately northeast of the aquatic center, with floating docks and two gangways. The pier platform and gangways are used by the dry boat storage to place boats into the water and remove them from the water. When the pier platform and gangways are not in use by the dry boat storage facility, they would be open to the public. Other waterside planned development in this area includes the addition of up to 20 moorings in the Sweetwater Channel; a new floating dock with up to 30 fingers in the Sweetwater Channel, south of the jetty; and a new dock in the marina basin, north of the jetty, for additional boats to be side-tied. Based on market demand, up to four hotels may also be constructed within the commercial recreation area – a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. In order to accommodate the hotels, it may be necessary to decrease the size of the RV park by approximately 65 RV spaces. A portion of the Bayshore Bikeway may traverse the commercial recreation area.

Existing buoys located in the Sweetwater Channel, south of the marina, may be relocated further east to allow non-motorized watercraft to access the area farther to the east in the channel. The buoys would be placed so as to prevent encroachment into the adjacent Wildlife Refuge areas, north and south of the channel.

Due to its proximity to the Wildlife Refuge/Paradise Marsh, a habitat buffer (designated with an Open Space land use designation) is located along the eastern edge of the commercial recreation area. The habitat buffer is 100 feet wide and is measured from the delineated wetlands west of the Wildlife Refuge/Paradise Marsh. In addition, there is a 200-foot-wide building setback from the western edge of the Wildlife Refuge/Paradise Marsh. Vehicular parking and low-impact non-motorized uses such as public access trails and bike paths can be located between the habitat buffer and building setback.

Uses in the commercial recreation area could include a restaurant or coffee shop,

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convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.

The boat launch has 8 lanes for boating access, a restroom and a dock facility on the Sweetwater Channel. An aquatic center facility including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements is located east of the boat launch. Public restrooms are located northwest of the boat launch and are accessible to the Pepper Park, launch ramp, and landing users. Continued heavy use of this public recreation area is anticipated for active yachting, instructional turf play and the more passive activities of fishing, picnicking and sightseeing.

Anchorage A-8, the Sweetwater Small Craft Anchorage, occupies a water area of approximately 200 acres. Although sheltered from the waves of the open ocean by the Silver Strand, the anchorage is exposed to long fetches inside the harbor. Approximately 250 vessels at single swing point anchorage using vessel ground tackle can be accommodated; however, use shall be incremental, the first phase to provide for up to 100 vessels, with any additional 100 increments to be subject to further public hearings and consultations with District member cities. About 30 percent of the spaces are to be reserved for short-term use by transient ocean cruising vessels. The boundaries of the anchorage are proposed to be identified by marker buoys and shown on bay charts. Control over the anchorage is to be exercised by the Port District. The existing National City small craft launching ramp provides landing and shoreside support services consisting of automobile parking, restrooms, public telephone, drinking water, trash disposal, and docking facilities.

~~*Marina*~~

~~The commercial recreation area shown on the Planning District Map is designed to accommodate the needs of workers in the nearby industrial area, people enjoying the nearby recreational park, and the adjacent marina and attendant commercial facilities. Uses could include a restaurant or coffee shop, convenience store, bait and tackle shop, boat slips and dry storage, lodging and other business activities consistent with public demand. Activities associated with the boat launch ramp, such as the sale and repair of trailered boats, boating equipment sales, water ski gear, and selected marine hardware, are appropriate uses.~~

~~The location and design of the commercial area, and possibly even its market feasibility, is dependent on improved access to Interstate 5. The additional traffic and increased activity in this presently isolated property would greatly enhance its attractiveness for commercial enterprise.~~

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TABLE 14: Precise Plan Land and Water Use Allocation
NATIONAL CITY: PLANNING DISTRICT 5

LAND USE	*ACRES*	*WATER USE*	*ACRES*	*TOTAL ACRES*	*% of TOTAL*
COMMERCIAL	~~7.9~~16.0	COMMERCIAL	~~14.6~~17.5	~~22.5~~33.5	~~5~~7%
Commercial Recreation	~~7.9~~16.0	Recreational Boat Berthing	~~14.6~~17.5		
INDUSTRIAL	~~237.7~~236.7	INDUSTRIAL	21.6	~~259.3~~258.3	~~59~~58%
Marine Related Industrial	~~153.7~~153.3	Specialized Berthing	7.9		
Marine Terminal	~~84.0~~83.4	Terminal Berthing	13.7		
PUBLIC RECREATION	~~4.2~~10.3	PUBLIC RECREATION	~~2.2~~1.4	~~6.4~~11.7	~~1~~3%
Open Space	2.6	Open Bay / Water	~~2.2~~1.4		
Park	~~4.2~~7.7				
PUBLIC FACILITIES	~~23.4~~16.7	PUBLIC FACILITIES	11.9	~~35.3~~28.6	~~8~~6%
Streets	~~23.4~~16.7	Boat Navigation Corridor	7.0		
		Ship Navigation Corridor	4.9		
		MILITARY	116.7	116.7	~~27~~26%
		Navy Ship Berthing	116.7		
TOTAL LAND AREA	**~~273.2~~279.7**	**TOTAL WATER AREA**	**~~167.0~~169.1**		

PRECISE PLAN LAND AND WATER ACREAGE TOTAL **~~440.2~~448.8** **100%**

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TABLE 15: Project List

NATIONAL CITY BAYFRONT: PLANNING DISTRICT 5

	SUBAREA ↓	DEVELOPER ↓	APPEALABLE ↓	FISCAL YEAR
1. CONTAINER WHARF: Extend rock revetment and apron wharf 1,000 feet. Excavate, drive support piles, place rock, construct wharf.	54	P	N	1988-99
2. COMPLETION OF TERMINAL WHARF: Extend rock revetment and apron wharf an additional 2,400 feet, to Sweetwater Wharf. Construct as above.	56	P	N	1998-99
3. SECOND CONTAINER CRANE: Install second container crane, miscellaneous equipment. Pave backup area.	54	P	N	1998-99
4. CONTAINER TRACK EXTENSION: Convert 500 feet of Berth 3 to a container wharf.	54	P	N	1998-99
5. MECHANICAL BULKLOADER: Install bulkloader, paving, railroad siding, conveyors, unloading pit.	54	P	N	1997-98
6. SHIPYARD: Construct shipyard facilities, buildings, cranes, dry-dock.	56	T	N	1993-94
7. COMMERCIAL SUPPORT AREA: Construct buildings, parking, landscape.	58	T	Y	1995-96
8. MECHANICAL UNLOADER: Erect cargo handling equipment.	54	P	N	1995-96
9. CONNECTING STREET: Linking Harbor Drive to Tidelands Avenue north of the Civic Center Drive.	51	P	N	1993-97
10. PEPPER PARK PUBLIC RESTROOMS: Demolish and remove existing structure, drinking fountain, public pay phone, and landscape materials. Construct new ADA compliant restroom facility, drinking fountain, public pay phone, walkways and landscape improvements.	58	P	N	2006-08
11. RECREATIONAL MARINA: Install marina docks, utility services, shoreside structures, walkways, landscape improvements and parking area; expand marina facilities by adding up to 20 moorings in the Sweetwater Channel, a new floating dock with up to 30 fingers in the Sweetwater Channel, and a new dock in the marina basin (north of the jetty).	~~59~~ 58	T	Y	1994-95; 2022-2024
12. AQUATIC CENTER: Construct and operate aquatic center facility, including restrooms, locker rooms, offices, classrooms, watercraft storage, paved exterior activity areas, security walls, fencing, lighting, and landscape improvements. Remove temporary classroom and storage facility and return pavement area to parking use.	58	T	Y	2006-08
13. CLOSE PORTIONS OF QUAY AVENUE, 28TH STREET, 32ND STREET: Close Quay Avenue, between Bay Marina Drive and 28th Street, 28th Street, west of Quay Avenue, and 32nd Street west of Tidelands Avenue to accommodate additional marine terminal operations and improve efficiencies with these operations.	55	T	N	2016-2017
14. BALANCED PLAN PUBLIC IMPROVEMENTS: (a) expand Pepper Park to the northwest, north and east, and include a mixture of hardscape and landscape, and features such as a community stage/kiosk and an interactive fountain/splashground; (b) relocate park entrance to the east; (c) realign Marina Way to form a curve that rounds out when traveling southwest	58	P	Y*	2022-2024

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through the Marina District subarea and create a public access corridor along the former Marina Way alignment (generally north-south alignment); (d) close 32nd Street east of Tidelands Avenue and create public access corridor along that former 32nd Street alignment (generally east-east alignment); (e) close southern half of Goesno Place to create a public access corridor.				
15. CLOSE PORTIONS OF TIDELANDS AVENUE, BETWEEN BAY MARINA DRIVE AND 32ND STREET: Close Tidelands Avenue, between Bay Marina Drive and 32nd Street to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations. Closure may be phased, with closure of Tidelands Avenue, between 28th Street and 32nd Street, occurring first; and closure of Tidelands Avenue, between Bay Marina Drive and 28th Street occurring second.	55	T	Y	2022-2024
16. CLOSE PORTION OF 28TH STREET, BETWEEN QUAY AVENUE AND TIDELANDS AVENUE: Close 28th Street, between Quay Avenue and Tidelands Avenue to improve marine-related industrial operational efficiencies, and potentially accommodate additional marine terminal operations.	55	T	N	2024
17. CONSTRUCT AND OPERATE CONNECTOR RAIL TRACK: Construct a connector rail track near the southeastern boundary of Subarea 55 to connect the existing rail yard along the west side of Marina Way (east of the National Distribution Center) to the existing balloon track that goes onto the marine terminal.	55	T	N	2024
18. OVERNIGHT ACCOMMODATIONS: Construct and operate overnight accommodations, in the commercial recreation area of the Marina District subarea, in at least two phases. Phase 1 includes up to 135 RV sites, up to 60 modular cabins south (on the existing jetty) and east of the marina, and ancillary facilities; and Phase 2, which would be constructed based on market demand, includes up to four hotels - a 3-story, 40 room hotel; a 4-story, 60 room hotel with retail; an 11-story, 282 room hotel; and a 4-story, 81 room hotel. In order to accommodate the hotels, it may be necessary to decrease the size of the RV park by approximately 65 RV spaces.	58	T	Y	2022-2026
19. DRY BOAT STORAGE FACILITY: Construct and operate an approximately 40,000-square-foot dry boat storage facility west of the realigned Marina Way and Subarea 55, and associated approximately 4,400-square-foot pier platform, floating docks, and gangways northeast of the aquatic center. The dry boat storage facility, which can store up to 210 boats, will store the boats in racks housed within up to five separate structures, each with a maximum height of 65 feet. An approximately 4,000-square-foot maintenance building and associated approximately 8,200-square-foot maintenance yard, both related to the dry boat storage, are proposed to be located northeast of the storage racks. When the pier platform is not being used for placing dry boat storage boats in the water or removing them from the water, it would be open to the public.	58	T	Y	2022-2026

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- Marine Related
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- Vista Area
- Promenade
- Open Bay
- Public Fishing Pier
- Boat Launching Ramp

Land **PUBLIC FACILITIES** Water

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- Anchorage Landing
- Boat Navigation Corridor
- Ship Navigation Corridor
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MILITARY Water

- Navy Ship Berthing

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- Lease Line
- Railroad
- Coastal Zone Boundaries

N Land Use Planning

scale approx. 0 200' 400'

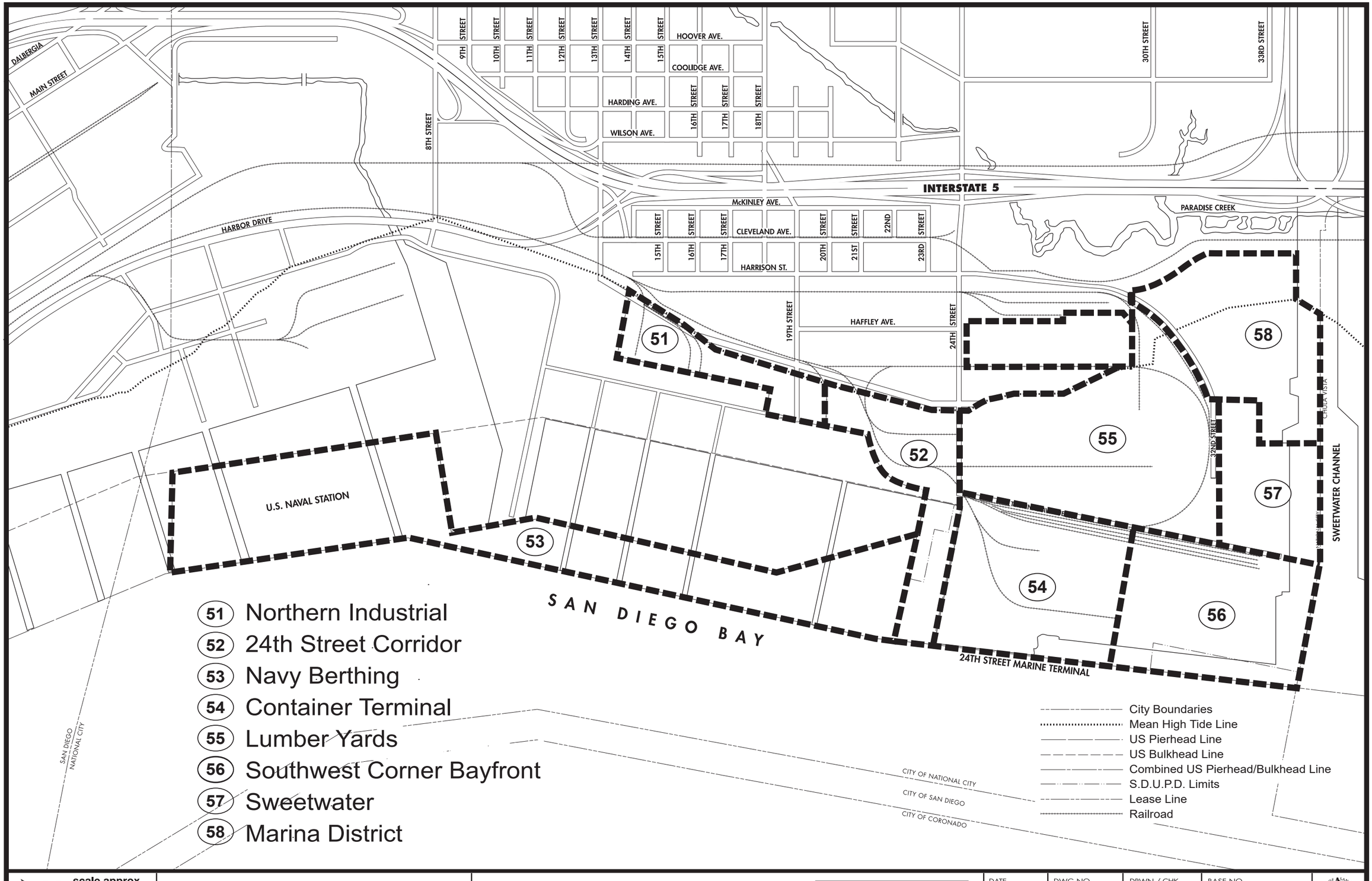
Planning District 5
NATIONAL CITY BAYFRONT

PRECISE PLAN

FIGURE 15

DATE	DWG NO.	DRWN / CHK	BASE NO.

PORT OF SAN DIEGO · UNITED PORT DISTRICT



N
scale approx.
0 200' 400'
Land Use Planning

Planning District 5
NATIONAL CITY BAYFRONT

Planning Subareas

FIGURE 16

DATE	DWG NO.	DRWN / CHK	BASE NO.

Appendix F

Air Quality and Greenhouse Gas Calculations

Construction Emission Calculation Sheets

Construction by Component
Balance Plan

Offroad Calculations Location Onsite

Phase	Equip	#/day	hrs/day	HP Bin	HP	LF	Fuel	2020 Pounds per day ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	2020 Tons per year ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
								3	*4*	*5*	*6*	*7*			*8*								
BalanceRoadway																							
BalanceRoadwayDemolition	Excavators	1	8	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	1	8	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.1	0.1	0.0	0.0			0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	1	8	250	199	0.4	Diesel	0.4	4.3	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayDemolition	Skid Steer Loaders	1	8	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayGrading	Rubber Tired Dozers	1	8	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.3	0.2	0.0	0.0			0.0
BalanceRoadwayGrading	Rubber Tired Loaders	1	8	120	97	0.4	Diesel	0.3	2.9	2.4	0.2	0.2			0.0	0.0	0.1	0.1	0.0	0.0			0.0
BalanceRoadwayGrading	Scrapers	2	8	500	361	0.5	Diesel	2.0	23.2	14.7	0.9	0.8			0.0	0.0	0.6	0.4	0.0	0.0			0.0
BalanceRoadwayUtilities	Excavators	1	8	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Graders	1	8	175	174	0.4	Diesel	0.7	6.9	4.5	0.4	0.4			0.0	0.0	0.1	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Pavers	1	8	175	125	0.4	Diesel	0.3	2.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Rollers	1	8	120	80	0.4	Diesel	0.2	2.1	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Skid Steer Loaders	1	8	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	1	8	250	205	0.5	Diesel	0.3	3.3	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Cranes	1	8	250	226	0.3	Diesel	0.4	5.2	2.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Off-Highway Trucks	1	8	500	400	0.4	Diesel	0.7	6.3	3.8	0.2	0.2			0.0	0.0	0.1	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Air Compressors	1	8	120	78	0.5	Diesel	0.3	2.2	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalancePark																							
BalanceParkDemolition	Concrete/Industrial Saws	1	8	120	81	0.7	Diesel	0.4	3.3	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkDemolition	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	1.1	11.2	4.1	0.5	0.5			0.0	0.0	0.1	0.0	0.0	0.0			0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	3	8	120	97	0.4	Diesel	0.6	6.3	6.8	0.4	0.4			0.0	0.0	0.1	0.1	0.0	0.0			0.0
BalanceParkSite Preparation	Graders	1	8	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	1	7	120	97	0.4	Diesel	0.2	1.8	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkSite Preparation	Scrapers	1	8	500	367	0.5	Diesel	1.0	11.8	7.5	0.5	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	1.1	11.2	4.1	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	2	7	120	97	0.4	Diesel	0.4	3.7	4.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Graders	1	8	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkBuilding Erection	Generator Sets	1	8	120	84	0.7	Diesel	0.4	3.5	3.7	0.2	0.2			0.0	0.0	0.4	0.4	0.0	0.0			0.0
BalanceParkBuilding Erection	Cranes	1	8	250	231	0.3	Diesel	0.5	5.4	2.1	0.2	0.2			0.0	0.0	0.6	0.2	0.0	0.0			0.0
BalanceParkBuilding Erection	Forklifts	2	7	120	89	0.2	Diesel	0.3	2.3	2.1	0.2	0.2			0.0	0.0	0.3	0.2	0.0	0.0			0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	1	6	120	97	0.4	Diesel	0.2	1.6	1.7	0.1	0.1			0.0	0.0	0.2	0.2	0.0	0.0			0.0
BalanceParkBuilding Erection	Welders	3	8	50	46	0.5	Diesel	1.0	4.7	5.3	0.3	0.3			0.0	0.1	0.5	0.6	0.0	0.0			0.0
BalanceParkPaving	Cement and Mortar Mixers	1	8	15	9	0.6	Diesel	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Pavers	1	8	175	130	0.4	Diesel	0.3	2.8	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Rollers	2	8	120	80	0.4	Diesel	0.4	4.1	3.7	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Paving Equipment	1	8	175	132	0.4	Diesel	0.2	2.1	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkArchCoating	Air Compressors	1	6	120	78	0.5	Diesel	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger Hall																							
Granger HallPrepare	Concrete/Industrial Saws	2	8	120	81	0.7	Diesel	0.8	6.6	7.4	0.4	0.4			0.0	0.0	0.2	0.2	0.0	0.0			0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.1	0.1	0.0	0.0			0.0
Granger HallPrepare	Forklifts	1	8	120	89	0.2	Diesel	0.1	1.3	1.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallPrepare	Aerial Lifts	3	8	120	63	0.3	Diesel	0.1	1.9	3.3	0.0	0.0			0.0	0.0	0.1	0.1	0.0	0.0			0.0
Granger HallLoad	Cranes	2	4	250	231	0.3	Diesel	0.5	5.4	2.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallMove	Cranes	1	8	750	500	0.3	Diesel	0.6	7.9	3.7	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSetting	Cranes	2	4	250	231	0.3	Diesel	0.5	5.4	2.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSite Preparation	Graders	1	8	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location					6								2021											
		9	10	11			3	4	5	6	7		8									9	10	11	
Phase	Equip	Metric tons per year				Gal per year	Pounds per day							Tons per year								Metric tons per year			
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
BalanceRoadway																									
BalanceRoadwayDemolition	Excavators	4.7	0.0	0.0	4.7	458	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	7.7	0.0	0.0	7.9	758	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	5.4	0.0	0.0	5.5	530	0.3	3.8	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Skid Steer Loaders	1.8	0.0	0.0	1.8	174	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	19.3	0.0	0.0	19.6	1895	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Rubber Tired Loaders	6.5	0.0	0.0	6.6	640	0.3	2.6	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Scrapers	65.8	0.0	0.0	66.8	6443	1.8	21.2	13.8	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Excavators	2.3	0.0	0.0	2.4	229	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	133	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Graders	4.9	0.0	0.0	5.0	479	0.6	6.1	4.5	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Pavers	3.5	0.0	0.0	3.6	346	0.2	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Rollers	2.0	0.0	0.0	2.1	201	0.2	1.9	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Skid Steer Loaders	1.6	0.0	0.0	1.6	157	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	6.9	0.0	0.0	7.0	678	0.2	2.8	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Cranes	4.4	0.0	0.0	4.5	434	0.4	4.7	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Off-Highway Trucks	10.4	0.0	0.0	10.6	1022	0.6	5.3	3.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	2.4	0.0	0.0	2.5	240	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Air Compressors	3.1	0.0	0.0	3.1	300	0.3	2.0	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalancePark																									
BalanceParkDemolition	Concrete/Industrial Saws	5.4	0.0	0.0	5.4	527	0.4	3.0	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Rubber Tired Dozers	7.4	0.0	0.0	7.5	726	1.0	10.8	4.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	8.2	0.0	0.0	8.3	798	0.6	5.7	6.8	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Graders	0.9	0.0	0.0	0.9	85	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.4	0.0	0.0	0.4	35	0.2	1.7	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Scrapers	2.0	0.0	0.0	2.0	196	0.9	10.8	7.0	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Rubber Tired Dozers	2.2	0.0	0.0	2.3	218	1.0	10.8	4.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	140	0.3	3.3	3.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Graders	1.7	0.0	0.0	1.8	171	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Generator Sets	62.2	0.0	0.0	62.7	6089	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Cranes	55.4	0.0	0.0	56.3	5426	0.4	4.8	2.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Forklifts	26.0	0.0	0.0	26.4	2545	0.2	2.1	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	22.4	0.0	0.0	22.8	2196	0.1	1.4	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Welders	62.1	0.0	0.0	62.8	6084	0.9	4.5	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Cement and Mortar Mixers	0.2	0.0	0.0	0.2	20	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Pavers	1.8	0.0	0.0	1.9	180	0.2	2.6	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.4	0.0	0.0	0.4
BalanceParkPaving	Rollers	2.0	0.0	0.0	2.1	201	0.4	3.8	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.5	0.0	0.0	0.5
BalanceParkPaving	Tractors/Loaders/Backhoes	1.2	0.0	0.0	1.2	120	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.3	0.0	0.0	0.3
BalanceParkPaving	Paving Equipment	1.6	0.0	0.0	1.6	156	0.2	1.9	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.4	0.0	0.0	0.4
BalanceParkArchCoating	Air Compressors	0.0	0.0	0.0	0.0	0	0.2	1.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.3	0.0	0.0	1.3
Granger Hall																									
Granger HallPrepare	Concrete/Industrial Saws	35.5	0.0	0.0	35.8	3476	0.8	6.1	7.3	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	9.0	0.0	0.0	9.1	878	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Forklifts	4.5	0.0	0.0	4.5	436	0.1	1.2	1.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Aerial Lifts	14.5	0.0	0.0	14.7	1422	0.1	1.8	3.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Cranes	0.3	0.0	0.0	0.3	25	0.4	4.8	2.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallMove	Cranes	1.6	0.0	0.0	1.7	159	0.6	6.9	3.7	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Cranes	0.3	0.0	0.0	0.3	25	0.4	4.8	2.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Graders	0.3	0.0	0.0	0.3	28	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.1	0.0	0.0	0.1	13	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location	7	2022																		8				
			3	4	5	6	7			8								9	10	11					
Phase	Equip	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pound			
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10
BalanceRoadway																											
BalanceRoadwayDemolition	Excavators	0	0.2	1.8	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	3.4	0.1
BalanceRoadwayDemolition	Rubber Tired Dozers	0	0.8	8.5	6.9	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	7.8	6.6	0.4
BalanceRoadwayDemolition	Rubber Tired Loaders	0	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	1.5	0.1
BalanceRoadwayDemolition	Skid Steer Loaders	0	0.1	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	0	0.8	8.5	6.9	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	7.8	6.6	0.4
BalanceRoadwayGrading	Rubber Tired Loaders	0	0.3	2.3	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.2	2.4	0.1
BalanceRoadwayGrading	Scrapers	0	1.6	17.7	12.6	0.7	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.6	16.4	12.1	0.6
BalanceRoadwayUtilities	Excavators	0	0.2	1.8	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	3.4	0.1
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1
BalanceRoadwayPaving	Graders	0	0.6	5.2	4.4	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.4	4.3	0.2
BalanceRoadwayPaving	Pavers	0	0.2	2.0	2.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	2.7	0.1
BalanceRoadwayPaving	Rollers	0	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	1.8	0.1
BalanceRoadwayPaving	Skid Steer Loaders	0	0.1	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	0	0.2	2.1	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	1.9	0.1
BalanceRoadwayFinishing	Cranes	0	0.4	4.1	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.7	1.8	0.2
BalanceRoadwayFinishing	Off-Highway Trucks	0	0.5	4.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.6	3.3	0.1
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1
BalanceRoadwayFinishing	Air Compressors	0	0.3	1.9	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	1.7	2.4	0.1
BalancePark																											
BalanceParkDemolition	Concrete/Industrial Saws	0	0.4	2.8	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	3.7	0.1
BalanceParkDemolition	Rubber Tired Dozers	0	0.8	8.7	3.5	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3
BalanceParkDemolition	Tractors/Loaders/Backhoes	0	0.5	5.0	6.7	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.6	6.7	0.2
BalanceParkSite Preparation	Graders	0	0.4	5.2	1.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.6	1.7	0.1
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0	0.1	1.5	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	1.9	0.1
BalanceParkSite Preparation	Scrapers	0	0.8	9.0	6.4	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	8.3	6.2	0.3
BalanceParkGrading	Rubber Tired Dozers	0	0.8	8.7	3.5	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3
BalanceParkGrading	Tractors/Loaders/Backhoes	0	0.3	2.9	3.9	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	3.9	0.1
BalanceParkGrading	Graders	0	0.4	5.2	1.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.6	1.7	0.1
BalanceParkBuilding Erection	Generator Sets	0	0.3	2.9	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	3.7	0.1
BalanceParkBuilding Erection	Cranes	0	0.4	4.2	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.8	1.8	0.2
BalanceParkBuilding Erection	Forklifts	0	0.2	1.9	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.0	0.1
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0	0.1	1.3	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.7	0.1
BalanceParkBuilding Erection	Welders	0	0.8	4.4	5.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	4.3	5.0	0.2
BalanceParkPaving	Cement and Mortar Mixers	4	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0
BalanceParkPaving	Pavers	40	0.2	2.1	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	2.9	0.1
BalanceParkPaving	Rollers	45	0.3	3.4	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.2	3.7	0.2
BalanceParkPaving	Tractors/Loaders/Backhoes	27	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1
BalanceParkPaving	Paving Equipment	35	0.2	1.7	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	2.5	0.1
BalanceParkArchCoating	Air Compressors	125	0.2	1.4	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.3	1.8	0.1
Granger Hall																											
Granger HallPrepare	Concrete/Industrial Saws	0	0.7	5.6	7.3	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	5.2	7.3	0.3
Granger HallPrepare	Tractors/Loaders/Backhoes	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1
Granger HallPrepare	Forklifts	0	0.1	1.1	1.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.0	1.2	0.1
Granger HallPrepare	Aerial Lifts	0	0.1	1.7	3.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	3.3	0.0
Granger HallLoad	Cranes	0	0.4	4.2	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.8	1.8	0.2
Granger HallMove	Cranes	0	0.5	5.7	3.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	5.3	3.3	0.2
Granger HallSetting	Cranes	0	0.4	4.2	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.8	1.8	0.2
Granger HallSite Preparation	Graders	0	0.4	5.2	1.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.6	1.7	0.1
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1

Offroad Calculations	Location	2023															9									
		7			8								9	10	11			3	4	5	6	7			8	
Phase	Equip	s per day				Tons per year								Metric tons per year				Gal per	Pounds per day							
		PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG
BalanceRoadway																										
BalanceRoadwayDemolition	Excavators	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1			0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3			0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1			0.0	0.0
BalanceRoadwayDemolition	Skid Steer Loaders	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3			0.0	0.0
BalanceRoadwayGrading	Rubber Tired Loaders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	2.4	0.1	0.1			0.0	0.0
BalanceRoadwayGrading	Scrapers	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.5	15.2	11.8	0.6	0.6			0.0	0.0
BalanceRoadwayUtilities	Excavators	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1			0.0	0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Graders	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	4.3	0.2	0.2			0.0	0.0
BalanceRoadwayPaving	Pavers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.8	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Rollers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	1.8	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Skid Steer Loaders	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	1.9	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	1.7	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Off-Highway Trucks	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.3	3.3	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Air Compressors	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	2.4	0.1	0.1			0.0	0.0
BalancePark																										
BalanceParkDemolition	Concrete/Industrial Saws	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1			0.0	0.0
BalanceParkDemolition	Rubber Tired Dozers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3			0.0	0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.3	6.7	0.2	0.2			0.0	0.0
BalanceParkSite Preparation	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1			0.0	0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	1.9	0.1	0.1			0.0	0.0
BalanceParkSite Preparation	Scrapers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	7.7	6.0	0.3	0.3			0.0	0.0
BalanceParkGrading	Rubber Tired Dozers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3			0.0	0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	3.9	0.1	0.1			0.0	0.0
BalanceParkGrading	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Generator Sets	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	3.7	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.5	1.8	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Forklifts	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	2.0	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.7	0.0	0.0			0.0	0.0
BalanceParkBuilding Erection	Welders	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	4.1	5.0	0.1	0.1			0.0	0.0
BalanceParkPaving	Cement and Mortar Mixers	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0	0.0			0.0	0.0
BalanceParkPaving	Pavers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.9	0.1	0.1			0.0	0.0
BalanceParkPaving	Rollers	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	3.7	0.2	0.1			0.0	0.0
BalanceParkPaving	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0
BalanceParkPaving	Paving Equipment	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.5	0.1	0.1			0.0	0.0
BalanceParkArchCoating	Air Compressors	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.2	1.8	0.1	0.1			0.0	0.0
Granger Hall																										
Granger HallPrepare	Concrete/Industrial Saws	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	4.8	7.3	0.2	0.2			0.0	0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0
Granger HallPrepare	Forklifts	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.1	0.1	0.0			0.0	0.0
Granger HallPrepare	Aerial Lifts	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	3.3	0.0	0.0			0.0	0.0
Granger HallLoad	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.5	1.8	0.1	0.1			0.0	0.0
Granger HallMove	Cranes	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.8	3.3	0.2	0.2			0.0	0.0
Granger HallSetting	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.5	1.8	0.1	0.1			0.0	0.0
Granger HallSite Preparation	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1			0.0	0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0

Offroad Calculations	Location	2024											10
									9	10	11		
Phase	Equip	Tons per year							Metric tons per year				Gal per year
		NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BalanceRoadway													
BalanceRoadwayDemolition	Excavators	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Rubber Tired Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Skid Steer Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Rubber Tired Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Scrapers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayUtilities	Excavators	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Pavers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Rollers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Skid Steer Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Bore/Drill Rigs	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Off-Highway Trucks	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Air Compressors	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalancePark													
BalanceParkDemolition	Concrete/Industrial Saws	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkDemolition	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkDemolition	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Scrapers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Generator Sets	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Forklifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Welders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Cement and Mortar Mixers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Pavers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Rollers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Paving Equipment	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkArchCoating	Air Compressors	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger Hall													
Granger HallPrepare	Concrete/Industrial Saws	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Forklifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Aerial Lifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallLoad	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallMove	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSetting	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Labor Calculations	Offsite						2020											
							Pounds per day								Tons per year					
Code	Vehicles/ day	Single Trips/day	Miles/day	Vehicle	Vehicle Type	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D
Roadway																				
BalanceRoadwayDemolition	9	18	194	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																				
BalanceParkDemolition	7	13	140	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	4	8	86	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	23	46	497	Employee	LDA-LDT	Gas	0.1	0.1	1.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
BalanceParkPaving	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	5	9	97	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger Hall																				
Granger HallPrepare	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	3	5	54	Employee	LDA-LDT	Gas	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations							6	2021															
Code			Metric tons per year				Gal per year	Pounds per day								Tons per year								M
	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2
Roadway																								
BalanceRoadwayDemolition	0.0	0.0	1.2	0.0	0.0	1.2	136	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	0.0	0.0	2.0	0.0	0.0	2.0	227	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	0.0	0.0	0.3	0.0	0.0	0.3	38	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	0.0	0.0	0.6	0.0	0.0	0.6	68	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	0.0	0.0	0.7	0.0	0.0	0.7	82	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																								
BalanceParkDemolition	0.0	0.0	0.9	0.0	0.0	0.9	98	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	0.0	0.0	0.1	0.0	0.0	0.1	9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	0.0	0.0	0.2	0.0	0.0	0.2	23	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	0.0	0.0	33.6	0.0	0.0	33.9	3826	0.1	0.1	1.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	0.0	0.0	0.4	0.0	0.0	0.5	51	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
BalanceParkArchCoating	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Granger Hall																								
Granger HallPrepare	0.0	0.0	2.6	0.0	0.0	2.7	299	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	0.0	0.0	0.0	0.0	0.0	0.0	5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	0.0	0.0	0.1	0.0	0.0	0.1	14	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	0.0	0.0	0.0	0.0	0.0	0.0	5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	0.0	0.0	0.0	0.0	0.0	0.0	2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations				7	2022																		
Code	letric tons per year			Gal per year	Pounds per day								Tons per year								Metric tons per year			
	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Roadway																								
BalanceRoadwayDemolition	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																								
BalanceParkDemolition	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	0.0	0.0	0.0	0	0.1	0.1	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	0.0	0.0	0.1	11	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	0.0	0.0	0.3	33	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger Hall																								
Granger HallPrepare	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	0.0	0.0	0.0	0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations	8	2023																				9		
Code	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year		
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX
Roadway																								
BalanceRoadwayDemolition	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceRoadwayGrading	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceRoadwayUtilities	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceRoadwayPaving	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceRoadwayFinishing	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Park																								
BalanceParkDemolition	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceParkSite Preparation	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceParkGrading	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceParkBuilding Erection	0	0.1	0.1	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1
BalanceParkPaving	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
BalanceParkArchCoating	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Granger Hall																								
Granger HallPrepare	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Granger HallLoad	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Granger HallMove	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Granger HallSetting	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
Granger HallSite Preparation	0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0

Labor Calculations	2024																	10
Code	Pounds per day						Tons per year								Metric tons per year				Gal per year
	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Roadway																			
BalanceRoadwayDemolition	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayUtilities	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Park																			
BalanceParkDemolition	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkArchCoating	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger Hall																			
Granger HallPrepare	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallLoad	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallMove	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSetting	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Routine & As-Needed Onroad Calculations

Code		Total Trucks	Single Trips/day Yearly	Miles/day Yearly	Vehicles/day Daily	Single Trips/day Daily	Miles/day Daily	Vehicle	Vehicle Type	Fuel	Pounds per day					
											ROG	NOX	CO	PM10	PM2.5	PM10 D
BalanceRoadway																
BalanceRoadwayDemolition	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0
BalanceRoadwayGrading	Vendor	8	0	2	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0
BalanceRoadwayUtilities	Vendor	4	1	6	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0
BalanceRoadwayPaving	Vendor	18	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0
BalanceRoadwayFinishing	Vendor	2	0	2	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0
BalanceRoadwayDemolition	Material	400	40	800	20	40	800	General Truck	T7	Diesel	1.0	14.0	2.7	0.3	0.2	0.4
BalanceRoadwayGrading	Material	1000	40	800	20	40	800	General Truck	T7	Diesel	1.0	14.0	2.7	0.3	0.2	0.4
BalanceRoadwayUtilities	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Offsite Water Truck	20	2	15	1	2	15	Offsite Water Truck	T6	Diesel	0.0	0.1	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Offsite Water Truck	50	2	15	1	2	15	Offsite Water Truck	T6	Diesel	0.0	0.1	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Onsite Water Truck	20	1	5	1	1	5	Onsite Water Truck	T6Onsite	Diesel	0.0	0.1	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Onsite Water Truck	50	1	5	1	1	5	Onsite Water Truck	T6Onsite	Diesel	0.0	0.1	0.0	0.0	0.0	0.0
Park																
BalanceParkDemolition	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Vendor	3960	36	263	18	36	263	General Truck	T7	Diesel	0.3	5.0	1.1	0.1	0.1	0.1
BalanceParkPaving	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger Hall																
Granger HallPrepare	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Material	12	8	160	4	8	160	General Truck	T7	Diesel	0.2	2.8	0.5	0.1	0.0	0.1
Granger HallSetting	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations		2020														6									2021		
Code		Tons per year										Metric tons per year				Gal per year	Pounds per day										
		PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
BalanceRoadway																											
BalanceRoadwayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	57.5	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	23.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	11.5	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.6	51.7	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	5.7	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Material	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	31.0	0.0	0.0	32.4	3032.0	0.8	12.2	2.4	0.2	0.2	0.4	0.1	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Material	0.1	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	77.4	0.0	0.0	81.0	7580.0	0.8	12.2	2.4	0.2	0.2	0.4	0.1	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	30.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.8	75.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	23.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	58.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																											
BalanceParkDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Vendor	0.0	0.0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	116.2	0.0	0.0	121.6	11377	0.3	4.4	1.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger Hall																											
Granger HallPrepare	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.0	91	0.2	2.4	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations											7	2022																
Code		Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year								M
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2
BalanceRoadway																												
BalanceRoadwayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	9.0	1.6	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	9.0	1.6	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																												
BalanceParkDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	3.4	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger Hall																												
Granger HallPrepare	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallMove	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.8	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations					8	2023																		9			
Code		letric tons per year			Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per			
		CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO
BalanceRoadway																													
BalanceRoadwayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
BalanceRoadwayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
BalanceRoadwayUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
BalanceRoadwayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
BalanceRoadwayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
BalanceRoadwayDemolition	Material	0.0	0.0	0.0	0.0	0.1	7.0	1.2	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	6.9	1.2
BalanceRoadwayGrading	Material	0.0	0.0	0.0	0.0	0.1	7.0	1.2	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	6.9	1.2
BalanceRoadwayUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
BalanceRoadwayGrading	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
BalanceRoadwayDemolition	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
BalanceRoadwayGrading	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Park																													
BalanceParkDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Vendor	0.0	0.0	0.0	0	0.1	2.7	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.7	0.7
BalanceParkPaving	Vendor	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Vendor	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
BalanceParkSite Preparation	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
BalanceParkGrading	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
BalanceParkBuilding Erection	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
BalanceParkPaving	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
BalanceParkArchCoating	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger Hall																													
Granger HallPrepare	Vendor	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallLoad	Vendor	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallMove	Vendor	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallSetting	Vendor	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallSite Preparation	Vendor	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallPrepare	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallLoad	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallMove	Material	0.0	0.0	0.0	0	0.0	1.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.4	0.2
Granger HallSetting	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
Granger HallSite Preparation	Material	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations		2024																	10
Code		Pounds per day					Tons per year								Metric tons per year				Gal per year
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BalanceRoadway																			
BalanceRoadwayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Material	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Material	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Offsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Onsite Water Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Park																			
BalanceParkDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Vendor	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkArchCoating	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BalanceParkArchCoating	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger Hall																			
Granger HallPrepare	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallLoad	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallMove	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSetting	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallLoad	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallMove	Material	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSetting	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Earthmoving/Paving Calculations	Location	Onsite			2020													
Code	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day								Tons per year					
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D
BalanceRoadway																		
BalanceRoadwayDemolition			8		0.0					6.0	3.3		0.0					0.1
BalanceRoadwayGrading	0.10	320	8		0.0					6.2	3.3		0.0					0.2
BalanceRoadwayPaving		0		11,886	0.7					0.0	0.0		0.0					0.0
BalancePark																		
BalanceParkGrading	0.42	0	**8**		0.0					6.5	3.4		0.0					0.0
BalanceParkPaving		0		664	0.0					0.0	0.0		0.0					0.0

Earthmoving/Paving Calculations							6	2021																N
Code			Metric tons per year				Gal per year	Pounds per day								Tons per year								
	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2
BalanceRoadway																								
BalanceRoadwayDemolition	0.0							0.0					6.0	3.3		0.0					0.0	0.0		
BalanceRoadwayGrading	0.1							0.0					6.2	3.3		0.0					0.0	0.0		
BalanceRoadwayPaving	0.0							0.7					0.0	0.0		0.0					0.0	0.0		
BalancePark																								
BalanceParkGrading	0.0							0.0					6.5	3.4		0.0					0.0	0.0		
BalanceParkPaving	0.0							0.0					0.0	0.0		0.0					0.0	0.0		

Earthmoving/Paving Calculations				7	2022														8
Code	letric tons per year			Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BalanceRoadway																									
BalanceRoadwayDemolition					0.0					6.0	3.3		0.0					0.0	0.0						
BalanceRoadwayGrading					0.0					6.2	3.3		0.0					0.0	0.0						
BalanceRoadwayPaving					0.7					0.0	0.0		0.0					0.0	0.0						
BalancePark																									
BalanceParkGrading					0.0					6.5	3.4		0.0					0.0	0.0						
BalanceParkPaving					0.0					0.0	0.0		0.0					0.0	0.0						

Earthmoving/Paving Calculations	2023																			9				
Code	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pound		
	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10
BalanceRoadway																									
BalanceRoadwayDemolition	0.0					6.0	3.3		0.0					0.0	0.0							0.0			
BalanceRoadwayGrading	0.0					6.2	3.3		0.0					0.0	0.0							0.0			
BalanceRoadwayPaving	0.7					0.0	0.0		0.0					0.0	0.0							0.7			
BalancePark																									
BalanceParkGrading	0.0					6.5	3.4		0.0					0.0	0.0							0.0			
BalanceParkPaving	0.0					0.0	0.0		0.0					0.0	0.0							0.0			

Earthmoving/Paving Calculations	2024	10

Code	s per day				Tons per year								Metric tons per year				Gal per year
	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BalanceRoadway																	
BalanceRoadwayDemolition		6.0	3.3		0.0					0.0	0.0						
BalanceRoadwayGrading		6.2	3.3		0.0					0.0	0.0						
BalanceRoadwayPaving		0.0	0.0		0.0					0.0	0.0						
BalancePark																	
BalanceParkGrading		6.5	3.4		0.0					0.0	0.0						
BalanceParkPaving		0.0	0.0		0.0					0.0	0.0						

Demolition	ıtion	Onsite			
Code	**Structures**	**tons/day**	**ROG**	**NOX**	**CO**
BalanceRoadwayDemolition	Asphalt Paving	124			

Pounds per day				
PM10	PM2.5	PM10 D	PM2.5 D	SO2
		2.7	0.4	

Roadway/Parking Lot Coatings

Emissions based on Calculation Details in CalEEMod Users G	**Element**	**acre**	**Phase**
	Roadways	4.91	BalanceRoadwayFinishing

Apaint = Apl x P%
Eap = EFap x Aparking

Unmitigated	RoadwayFinishing	*description*
VOC Emissions (lbs/day)	10	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.1	
E (day)	10	
E (annual)	179	
EF -exterior	0.00695	emission factor (lbs per sq. ft.)
New construction (sf)	213,950	
Days of coatings	18	
Construction SF per day	11,886	ft2
Percent of parking lot area that is	6%	exterior fraction of surface area. Default is 6%
C	**150**	**VOC content (g/L)**

	2020
	Pounds per day
Phase	ROG
BalanceRoadwayFinishing	9.9

Offroad Calculations	Location	Onsite						2020											
Mitigated								3	4	5	6	7			8				
Phase	Equip	#/day	hrs/day	HP Bin	HP	LF	Fuel	Pounds per day								Tons per year			
								ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
BalanceRoadway																			
BalanceRoadwayDemolition	Excavators	1	8	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	1	8	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	1	8	250	199	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayDemolition	Skid Steer Loaders	1	8	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayGrading	Rubber Tired Dozers	1	8	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.1	0.1	0.0	0.0			0.0
BalanceRoadwayGrading	Rubber Tired Loaders	1	8	120	97	0.4	Diesel	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0			0.0
BalanceRoadwayGrading	Scrapers	2	8	500	361	0.5	Diesel	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.4	0.4	0.0	0.0			0.0
BalanceRoadwayUtilities	Excavators	1	8	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Graders	1	8	175	174	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Pavers	1	8	175	125	0.4	Diesel	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Rollers	1	8	120	80	0.4	Diesel	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayPaving	Skid Steer Loaders	1	8	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	1	8	250	205	0.5	Diesel	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Cranes	1	8	250	226	0.3	Diesel	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Off-Highway Trucks	1	8	500	400	0.4	Diesel	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.1	0.1	0.0	0.0			0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceRoadwayFinishing	Air Compressors	1	8	120	78	0.5	Diesel	0.1	1.5	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalancePark																			
BalanceParkDemolition	Concrete/Industrial Saws	1	8	120	81	0.7	Diesel	0.1	2.4	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkDemolition	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	3	8	120	97	0.4	Diesel	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.1	0.0	0.0			0.0
BalanceParkSite Preparation	Graders	1	8	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	1	7	120	97	0.4	Diesel	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkSite Preparation	Scrapers	1	8	500	367	0.5	Diesel	0.4	7.2	8.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	2	7	120	97	0.4	Diesel	0.1	2.6	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkGrading	Graders	1	8	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkBuilding Erection	Generator Sets	1	8	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.3	0.4	0.0	0.0			0.0
BalanceParkBuilding Erection	Cranes	1	8	250	231	0.3	Diesel	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.3	0.3	0.0	0.0			0.0
BalanceParkBuilding Erection	Forklifts	2	7	120	89	0.2	Diesel	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.1	0.2	0.0	0.0			0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	1	6	120	97	0.4	Diesel	0.1	1.1	1.7	0.1	0.1			0.0	0.0	0.1	0.2	0.0	0.0			0.0
BalanceParkBuilding Erection	Welders	3	8	50	46	0.5	Diesel	0.1	3.0	4.1	0.2	0.2			0.0	0.0	0.3	0.4	0.0	0.0			0.0
BalanceParkPaving	Cement and Mortar Mixers	1	8	15	9	0.6	Diesel	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Pavers	1	8	175	130	0.4	Diesel	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Rollers	2	8	120	80	0.4	Diesel	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkPaving	Paving Equipment	1	8	175	132	0.4	Diesel	0.1	1.9	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
BalanceParkArchCoating	Air Compressors	1	6	120	78	0.5	Diesel	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger Hall																			
Granger HallPrepare	Concrete/Industrial Saws	2	8	120	81	0.7	Diesel	0.3	4.8	7.7	0.2	0.2			0.0	0.0	0.2	0.3	0.0	0.0			0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0			0.0
Granger HallPrepare	Forklifts	1	8	120	89	0.2	Diesel	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallPrepare	Aerial Lifts	3	8	120	63	0.3	Diesel	0.1	2.4	3.8	0.1	0.1			0.0	0.0	0.1	0.1	0.0	0.0			0.0
Granger HallLoad	Cranes	2	4	250	231	0.3	Diesel	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallMove	Cranes	1	8	750	500	0.3	Diesel	0.3	5.9	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSetting	Cranes	2	4	250	231	0.3	Diesel	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSite Preparation	Graders	1	8	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location					6	2021																
Mitigated		9	10	11			3	4	5	6	7			8							9	10	11	
Phase	Equip	Metric tons per year				Gal per year	Pounds per day								Tons per year							Metric tons per year			
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
BalanceRoadway																									
BalanceRoadwayDemolition	Excavators	4.7	0.0	0.0	4.7	458	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	7.7	0.0	0.0	7.9	758	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	5.4	0.0	0.0	5.5	530	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayDemolition	Skid Steer Loaders	1.8	0.0	0.0	1.8	174	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	19.3	0.0	0.0	19.6	1895	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Rubber Tired Loaders	6.5	0.0	0.0	6.6	640	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayGrading	Scrapers	65.8	0.0	0.0	66.8	6443	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Excavators	2.3	0.0	0.0	2.4	229	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	133	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Graders	4.9	0.0	0.0	5.0	479	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Pavers	3.5	0.0	0.0	3.6	346	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Rollers	2.0	0.0	0.0	2.1	201	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayPaving	Skid Steer Loaders	1.6	0.0	0.0	1.6	157	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	6.9	0.0	0.0	7.0	678	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Cranes	4.4	0.0	0.0	4.5	434	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Off-Highway Trucks	10.4	0.0	0.0	10.6	1022	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	2.4	0.0	0.0	2.5	240	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceRoadwayFinishing	Air Compressors	3.1	0.0	0.0	3.1	300	0.1	1.5	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalancePark																									
BalanceParkDemolition	Concrete/Industrial Saws	5.4	0.0	0.0	5.4	527	0.1	2.4	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Rubber Tired Dozers	7.4	0.0	0.0	7.5	726	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	8.2	0.0	0.0	8.3	798	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Graders	0.9	0.0	0.0	0.9	85	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.4	0.0	0.0	0.4	35	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkSite Preparation	Scrapers	2.0	0.0	0.0	2.0	196	0.4	7.2	8.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Rubber Tired Dozers	2.2	0.0	0.0	2.3	218	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	140	0.1	2.6	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkGrading	Graders	1.7	0.0	0.0	1.8	171	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Generator Sets	62.2	0.0	0.0	62.7	6089	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Cranes	55.4	0.0	0.0	56.3	5426	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Forklifts	26.0	0.0	0.0	26.4	2545	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	22.4	0.0	0.0	22.8	2196	0.1	1.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkBuilding Erection	Welders	62.1	0.0	0.0	62.8	6084	0.1	3.0	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Cement and Mortar Mixers	0.2	0.0	0.0	0.2	20	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
BalanceParkPaving	Pavers	1.8	0.0	0.0	1.9	180	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.4	0.0	0.0	0.4
BalanceParkPaving	Rollers	2.0	0.0	0.0	2.1	201	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.5	0.0	0.0	0.5
BalanceParkPaving	Tractors/Loaders/Backhoes	1.2	0.0	0.0	1.2	120	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.3	0.0	0.0	0.3
BalanceParkPaving	Paving Equipment	1.6	0.0	0.0	1.6	156	0.1	1.9	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.4	0.0	0.0	0.4
BalanceParkArchCoating	Air Compressors	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.3	0.0	0.0	1.3
Granger Hall																									
Granger HallPrepare	Concrete/Industrial Saws	35.5	0.0	0.0	35.8	3476	0.3	4.8	7.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	9.0	0.0	0.0	9.1	878	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Forklifts	4.5	0.0	0.0	4.5	436	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallPrepare	Aerial Lifts	14.5	0.0	0.0	14.7	1422	0.1	2.4	3.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallLoad	Cranes	0.3	0.0	0.0	0.3	25	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallMove	Cranes	1.6	0.0	0.0	1.7	159	0.3	5.9	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSetting	Cranes	0.3	0.0	0.0	0.3	25	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Graders	0.3	0.0	0.0	0.3	28	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.1	0.0	0.0	0.1	13	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location	7	2022																			8				
Mitigated			3	4	5	6	7			8									9	10	11			3	4	5	6
Phase	Equip	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year				Pound
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10
BalanceRoadway																											
BalanceRoadwayDemolition	Excavators	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1
BalanceRoadwayDemolition	Rubber Tired Dozers	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2
BalanceRoadwayDemolition	Rubber Tired Loaders	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1
BalanceRoadwayDemolition	Skid Steer Loaders	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2
BalanceRoadwayGrading	Rubber Tired Loaders	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1
BalanceRoadwayGrading	Scrapers	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5
BalanceRoadwayUtilities	Excavators	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1
BalanceRoadwayPaving	Graders	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1
BalanceRoadwayPaving	Pavers	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1
BalanceRoadwayPaving	Rollers	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1
BalanceRoadwayPaving	Skid Steer Loaders	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2
BalanceRoadwayFinishing	Cranes	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1
BalanceRoadwayFinishing	Off-Highway Trucks	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1
BalanceRoadwayFinishing	Air Compressors	0	0.1	1.5	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.4	0.1
BalancePark																											
BalanceParkDemolition	Concrete/Industrial Saws	0	0.1	2.4	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.9	0.1
BalanceParkDemolition	Rubber Tired Dozers	0	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2
BalanceParkDemolition	Tractors/Loaders/Backhoes	0	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2
BalanceParkSite Preparation	Graders	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1
BalanceParkSite Preparation	Scrapers	0	0.4	7.2	8.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	7.2	8.1	0.3
BalanceParkGrading	Rubber Tired Dozers	0	0.2	4.0	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2
BalanceParkGrading	Tractors/Loaders/Backhoes	0	0.1	2.6	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.6	4.1	0.1
BalanceParkGrading	Graders	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1
BalanceParkBuilding Erection	Generator Sets	0	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1
BalanceParkBuilding Erection	Cranes	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1
BalanceParkBuilding Erection	Forklifts	0	0.1	1.3	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0	0.1	1.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.7	0.1
BalanceParkBuilding Erection	Welders	0	0.1	3.0	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	3.0	4.1	0.2
BalanceParkPaving	Cement and Mortar Mixers	4	0.1	0.4	0.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0
BalanceParkPaving	Pavers	40	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1
BalanceParkPaving	Rollers	45	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1
BalanceParkPaving	Tractors/Loaders/Backhoes	27	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1
BalanceParkPaving	Paving Equipment	35	0.1	1.9	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.9	2.1	0.1
BalanceParkArchCoating	Air Compressors	125	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1
Granger Hall																											
Granger HallPrepare	Concrete/Industrial Saws	0	0.3	4.8	7.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	4.8	7.7	0.2
Granger HallPrepare	Tractors/Loaders/Backhoes	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1
Granger HallPrepare	Forklifts	0	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	1.2	0.0
Granger HallPrepare	Aerial Lifts	0	0.1	2.4	3.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.8	0.1
Granger HallLoad	Cranes	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1
Granger HallMove	Cranes	0	0.3	5.9	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	5.9	6.6	0.2
Granger HallSetting	Cranes	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1
Granger HallSite Preparation	Graders	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1

Offroad Calculations	Location	2023															9									
Mitigated		7			8								9	10	11			3	4	5	6	7			8	
Phase	Equip	s per day				Tons per year								Metric tons per year				Gal per year	Pounds per day								
		PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG
BalanceRoadway																											
BalanceRoadwayDemolition	Excavators	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Dozers	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0
BalanceRoadwayDemolition	Rubber Tired Loaders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0
BalanceRoadwayDemolition	Skid Steer Loaders	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0
BalanceRoadwayGrading	Rubber Tired Dozers	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0
BalanceRoadwayGrading	Rubber Tired Loaders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0
BalanceRoadwayGrading	Scrapers	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0
BalanceRoadwayUtilities	Excavators	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Pavers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Rollers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0
BalanceRoadwayPaving	Skid Steer Loaders	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0
BalanceRoadwayFinishing	Bore/Drill Rigs	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0
BalanceRoadwayFinishing	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Off-Highway Trucks	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0
BalanceRoadwayFinishing	Air Compressors	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.4	0.1	0.1			0.0	0.0
BalancePark																											
BalanceParkDemolition	Concrete/Industrial Saws	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.9	0.1	0.1			0.0	0.0
BalanceParkDemolition	Rubber Tired Dozers	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2			0.0	0.0
BalanceParkDemolition	Tractors/Loaders/Backhoes	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2	0.2			0.0	0.0
BalanceParkSite Preparation	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1	0.1			0.0	0.0
BalanceParkSite Preparation	Scrapers	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	7.2	8.1	0.3	0.3			0.0	0.0
BalanceParkGrading	Rubber Tired Dozers	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2			0.0	0.0
BalanceParkGrading	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.6	4.1	0.1	0.1			0.0	0.0
BalanceParkGrading	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Generator Sets	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Forklifts	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.7	0.1	0.1			0.0	0.0
BalanceParkBuilding Erection	Welders	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	3.0	4.1	0.2	0.2			0.0	0.0
BalanceParkPaving	Cement and Mortar Mixers	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0	0.0			0.0	0.0
BalanceParkPaving	Pavers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1	0.1			0.0	0.0
BalanceParkPaving	Rollers	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1	0.1			0.0	0.0
BalanceParkPaving	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0
BalanceParkPaving	Paving Equipment	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.9	2.1	0.1	0.1			0.0	0.0
BalanceParkArchCoating	Air Compressors	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1			0.0	0.0
Granger Hall																											
Granger HallPrepare	Concrete/Industrial Saws	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	4.8	7.7	0.2	0.2			0.0	0.0
Granger HallPrepare	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0
Granger HallPrepare	Forklifts	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	1.2	0.0	0.0			0.0	0.0
Granger HallPrepare	Aerial Lifts	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.8	0.1	0.1			0.0	0.0
Granger HallLoad	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0
Granger HallMove	Cranes	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	5.9	6.6	0.2	0.2			0.0	0.0
Granger HallSetting	Cranes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0
Granger HallSite Preparation	Graders	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0

Offroad Calculations	Location	2024											10
Mitigated									9	10	11		
Phase	Equip	Tons per year							Metric tons per year				Gal per year
		NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BalanceRoadway													
BalanceRoadwayDemolition	Excavators	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Rubber Tired Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayDemolition	Skid Steer Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Rubber Tired Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayGrading	Scrapers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayUtilities	Excavators	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayUtilities	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Pavers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Rollers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayPaving	Skid Steer Loaders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Bore/Drill Rigs	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Off-Highway Trucks	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceRoadwayFinishing	Air Compressors	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalancePark													
BalanceParkDemolition	Concrete/Industrial Saws	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkDemolition	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkDemolition	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkSite Preparation	Scrapers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Rubber Tired Dozers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkGrading	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Generator Sets	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Forklifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkBuilding Erection	Welders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Cement and Mortar Mixers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Pavers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Rollers	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkPaving	Paving Equipment	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
BalanceParkArchCoating	Air Compressors	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger Hall													
Granger HallPrepare	Concrete/Industrial Saws	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Forklifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallPrepare	Aerial Lifts	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallLoad	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallMove	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSetting	Cranes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Graders	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
Granger HallSite Preparation	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Roadway/Parking Lot Coatings

Emissions based on Calculation Details in CalEEM **Phase**

Mitigated BalanceRoadwayFinishing

Apaint = Apl x P%

Eap = EFap x Aparking

Unmitigated	RoadwayFinishing	*description*
VOC Emissions (lbs/day)	5	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	5	
E (annual)	89	
EF -exterior	0.00348	emission factor (lbs per sq. ft.)
New construction (sf)	213,950	
Days of coatings	18	
Construction SF per day	11,886	ft2
Percent of parking lot area tha	6%	exterior fraction of surface area. Default is 6%
C	**75**	**VOC content (g/L)**

Mitigated

Phase	Pounds per day ROG
BalanceRoadwayFinishing	5.0

Construction by Component
Bayshore Bikeway

Offroad Calculations	Location	Onsite						2020											
								3	*4*	*5*	*6*	*7*	*8*						
Phase	**Equip**	**#/day**	**hrs/day**	**HP Bin**	**HP**	**LF**	**Fuel**	**Pounds per day**						**Tons per year**					
								ROG	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**
Bikeway																			
BikewayDemolition	Concrete/Industrial Saws	1	8	120	81	0.7	Diesel	0.4	3.3	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	1.1	11.2	4.1	0.5	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0
BikewayDemolition	Tractors/Loaders/Backhoes	3	8	120	97	0.4	Diesel	0.6	6.3	6.8	0.4	0.4	0.0	0.0	0.1	0.1	0.0	0.0	0.0
BikewaySite Preparation	Graders	1	8	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Tractors/Loaders/Backhoes	1	7	120	97	0.4	Diesel	0.2	1.8	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Scrapers	1	8	500	367	0.5	Diesel	1.0	11.8	7.5	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	1.1	11.2	4.1	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Tractors/Loaders/Backhoes	2	7	120	97	0.4	Diesel	0.4	3.7	4.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Graders	1	8	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Cement and Mortar Mixers	1	8	15	9	0.6	Diesel	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Pavers	1	8	175	130	0.4	Diesel	0.3	2.8	2.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Rollers	2	8	120	80	0.4	Diesel	0.4	4.1	3.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Paving Equipment	1	8	175	132	0.4	Diesel	0.2	2.1	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Air Compressors	1	6	120	78	0.5	Diesel	0.2	1.7	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location					6	2021													
		9	10	11			3	4	5	6	7	8							9	10	11
Phase	Equip	Metric tons per year				Gal per year	Pounds per day						Tons per year						Metric tons per ye		
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	SO2	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
Bikeway																					
BikewayDemolition	Concrete/Industrial Saws	5.4	0.0	0.0	5.4	527	0.4	3.0	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Rubber Tired Dozers	7.4	0.0	0.0	7.5	726	1.0	10.8	4.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Tractors/Loaders/Backhoes	8.2	0.0	0.0	8.3	798	0.6	5.7	6.8	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Graders	0.9	0.0	0.0	0.9	85	0.5	5.9	1.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Tractors/Loaders/Backhoes	0.4	0.0	0.0	0.4	35	0.2	1.7	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Scrapers	2.0	0.0	0.0	2.0	196	0.9	10.8	7.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Rubber Tired Dozers	2.2	0.0	0.0	2.3	218	1.0	10.8	4.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	140	0.3	3.3	3.9	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Graders	1.7	0.0	0.0	1.8	171	0.5	5.9	1.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Cement and Mortar Mixers	0.2	0.0	0.0	0.2	22	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Pavers	2.0	0.0	0.0	2.1	200	0.2	2.6	2.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Rollers	2.3	0.0	0.0	2.3	223	0.4	3.8	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Tractors/Loaders/Backhoes	1.4	0.0	0.0	1.4	133	0.2	1.9	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Paving Equipment	1.8	0.0	0.0	1.8	173	0.2	1.9	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Air Compressors	1.3	0.0	0.0	1.3	125	0.2	1.5	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location		7	2022															8		
				3	4	5	6	7	8							9	10	11		3	4
Phase	Equip	ear CO2e	Gal per year	Pounds per day						Tons per year						Metric tons per year				Gal per year	
				ROG	NOX	CO	PM10	PM2.5	SO2	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e		ROG	NOX
Bikeway																					
BikewayDemolition	Concrete/Industrial Saws	0.0	0	0.4	2.8	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	2.6
BikewayDemolition	Rubber Tired Dozers	0.0	0	0.8	8.7	3.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.7	7.0
BikewayDemolition	Tractors/Loaders/Backhoes	0.0	0	0.5	5.0	6.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.5	4.6
BikewaySite Preparation	Graders	0.0	0	0.4	5.2	1.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	4.6
BikewaySite Preparation	Tractors/Loaders/Backhoes	0.0	0	0.1	1.5	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.3
BikewaySite Preparation	Scrapers	0.0	0	0.8	9.0	6.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.8	8.3
BikewayGrading	Rubber Tired Dozers	0.0	0	0.8	8.7	3.5	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.7	7.0
BikewayGrading	Tractors/Loaders/Backhoes	0.0	0	0.3	2.9	3.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	2.7
BikewayGrading	Graders	0.0	0	0.4	5.2	1.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	4.6
BikewayPaving	Cement and Mortar Mixers	0.0	0	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.4
BikewayPaving	Pavers	0.0	0	0.2	2.1	2.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.9
BikewayPaving	Rollers	0.0	0	0.3	3.4	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	3.2
BikewayPaving	Tractors/Loaders/Backhoes	0.0	0	0.2	1.7	2.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.5
BikewayPaving	Paving Equipment	0.0	0	0.2	1.7	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.6
BikewayFinishing	Air Compressors	0.0	0	0.2	1.4	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.3

Offroad Calculations	Location	2023														9						
		5	*6*	*7*	*8*							*9*	*10*	*11*			*3*	*4*	*5*	*6*	*7*	*8*
Phase	**Equip**	**Pounds per day**				**Tons per year**						**Metric tons per year**				**Gal per year**	**Pounds per day**					
		CO	**PM10**	**PM2.5**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**	**CO2e**		**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**
Bikeway																						
BikewayDemolition	Concrete/Industrial Saws	3.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1	0.0
BikewayDemolition	Rubber Tired Dozers	3.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3	0.0
BikewayDemolition	Tractors/Loaders/Backhoes	6.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	4.3	6.7	0.2	0.2	0.0
BikewaySite Preparation	Graders	1.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1	0.0
BikewaySite Preparation	Tractors/Loaders/Backhoes	1.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	1.9	0.1	0.1	0.0
BikewaySite Preparation	Scrapers	6.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.8	7.7	6.0	0.3	0.3	0.0
BikewayGrading	Rubber Tired Dozers	3.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3	0.0
BikewayGrading	Tractors/Loaders/Backhoes	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	3.9	0.1	0.1	0.0
BikewayGrading	Graders	1.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1	0.0
BikewayPaving	Cement and Mortar Mixers	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0	0.0	0.0
BikewayPaving	Pavers	2.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.9	0.1	0.1	0.0
BikewayPaving	Rollers	3.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	3.7	0.2	0.1	0.0
BikewayPaving	Tractors/Loaders/Backhoes	2.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1	0.0
BikewayPaving	Paving Equipment	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.5	0.1	0.1	0.0
BikewayFinishing	Air Compressors	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	1.2	1.8	0.1	0.1	0.0

Offroad Calculations	Location	2024										10
								9	10	11		
Phase	Equip	Tons per year						Metric tons per year				Gal per year
		ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e	
Bikeway												
BikewayDemolition	Concrete/Industrial Saws	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayDemolition	Rubber Tired Dozers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayDemolition	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Graders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Scrapers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Rubber Tired Dozers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Graders	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Cement and Mortar Mixers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Pavers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Rollers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Paving Equipment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	Air Compressors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Labor Calculations Offsite

							2020													
							13	14	15	16	17	18	19	20						
							2	3	4	5	7	6	8	9						
Code	**Vehicles/ day**	**Single Trips/day**	**Miles/day**	**Vehicle**	**Vehicle Type**	**Fuel**	**Pounds per day**								**Tons per year**					
							ROG	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**
Bikeway																						
BikewayDemolition	7	13	140	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	4	8	86	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	4	8	86	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations	Offsite					6	2021																
		21	22	23			13	14	15	16	17	18	19	20								21	22	23
		10	11	12			2	3	4	5	7	6	8	9								10	11	12
Code	Vehicles/ day	Metric tons per year				Gal per year	Pounds per day								Tons per year							Metric tons per ye		
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
Bikeway																								
BikewayDemolition	7	0.9	0.0	0.0	0.9	98	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	4	0.1	0.0	0.0	0.1	9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	5	0.2	0.0	0.0	0.2	23	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	8	0.5	0.0	0.0	0.5	57	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	4	0.3	0.0	0.0	0.3	30	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations	Offsite		7	2022																				8	
				13	14	15	16	17	18	19	20									21	22	23			13
				2	3	4	5	7	6	8	9									10	11	12			2
Code	Vehicles/ day	ar CO2e	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year	
				ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG
Bikeway																									
BikewayDemolition	7	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
BikewaySite Preparation	4	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
BikewayGrading	5	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
BikewayPaving	8	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
BikewayFinishing	4	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0

Labor Calculations	Offsite	2023																			9			
		14	*15*	*16*	*17*	*18*	*19*	*20*									*21*	*22*	*23*			*13*	*14*	*15*
		3	*4*	*5*	*7*	*6*	*8*	*9*									*10*	*11*	*12*			*2*	*3*	*4*
Code	**Vehicles/ day**	**Pounds per day**							**Tons per year**								**Metric tons per year**				**Gal per year**			
		NOX	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**CO2**	**CH4**	**N2O**	**CO2e**		**ROG**	**NOX**	**CO**
Bikeway																								
BikewayDemolition	7	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2
BikewaySite Preparation	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.1
BikewayGrading	5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2
BikewayPaving	8	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3
BikewayFinishing	4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.1

Labor Calculations	Offsite	2024																10
		16	17	18	19	20								21	22	23		
		5	7	6	8	9								10	11	12		
Code	Vehicles/ day	Pounds per day					Tons per year							Metric tons per year				Gal per year
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Bikeway																			
BikewayDemolition	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Earthmoving/Paving Calculations		Location	Onsite			2020													
Code	Air Basin	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day								Tons per year					
						ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5
Bikeway																			
BikewayGrading	SDAB	0.36	0	8	0.36	0.0					6.4	3.4		0.0					

Earthmoving/Paving Calculations									6	2021																
Code	Air Basin	Metric tons per year							Gal per year	Pounds per day								Tons per year								
		PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
Bikeway																										
BikewayGrading	SDAB	0.0	0.0							0.0					6.4	3.4		0.0					0.0	0.0		

Earthmoving/Paving Calculations							7	2022															
Code	Air Basin	Metric tons per year					Gal per year	Pounds per day								Tons per year								Metric tor	
		SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4
Bikeway																									
BikewayGrading	SDAB							0.0					6.4	3.4		0.0					0.0	0.0			

Earthmoving/Paving Calculations			8	2023									9

Code	Air Basin	s per year		Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
		N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Bikeway																									
BikewayGrading	SDAB				0.0					6.4	3.4		0.0					0.0	0.0						

Earthmoving/Paving Calculations		2024																	10
Code	**Air Basin**	**Pounds per day**								**Tons per year**								**Metric tons per year**				**Gal per year**
		ROG	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**CO2**	**CH4**	**N2O**	**CO2e**	
Bikeway																						
BikewayGrading	SDAB	0.0					6.4	3.4		0.0					0.0	0.0						

Routine & As-Needed Onroad Calculations

				Yearly			Daily					2020											
												13	14	15	16	17	18	19	20				
												2	3	4	5	7	6	8	9				
Code	Trip Type	Air Basin	Total Trucks	Single Trips/day Yearly	Miles/day Yearly	Vehicles/day Daily	Single Trips/day Daily	Miles/day Daily	Vehicle	Vehicle Type	Fuel	Pounds per day								Tons			
												ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10
Bikeway																							
BikewayDemolition	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Vendor	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Material	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Material	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Material	SDAB	134	27	535	14	28	560	General Truck	T7	Diesel	0.7	9.8	1.9	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Material	SDAB	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations						6					2021																	7
		21	22	23							13	14	15	16	17	18	19	20										
		10	11	12							2	3	4	5	7	6	8	9										
Code	Trip Type	per year				Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
		PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Bikeway																															
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Material	0.0	0.0	0.0	0.0	10.3	0.0	0.0	10.8	1013	0.5	8.5	1.7	0.1	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Routine & As-Needed Onroad Calculations		2022																	8	2020									
		13	14	15	16	17	18	19	20								21	22	23			13	14	15	16	17	18	19	20	
		2	3	4	5	7	6	8	9								10	11	12			2	3	4	5	7	6	8	9	
Code	Trip Type	Pounds per day								Tons per year								Metric tons per year				Gal	Pounds per day								
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	per	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX
Bikeway																															
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Material	0.2	6.3	1.1	0.1	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	4.9	0.8	0.0	0.0	0.3	0.1	0.0	0.0	0.0
BikewayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations	23										9	2024																	
								21	22	23		13	14	15	16	17	18	19	20									21	22	23
								10	11	12		2	3	4	5	7	6	8	9									10	11	12
Code	Trip Type	Tons per year						Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
		CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Bikeway																																
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewaySite Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	4.8	0.8	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BikewayFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations		10	2025																				11
			13	14	15	16	17	18	19	20									21	22	23		
			2	3	4	5	7	6	8	9									10	11	12		
Code	Trip Type	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Bikeway																							
BikewayDemolition	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayDemolition	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewaySite Preparation	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayGrading	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayPaving	Material	0	0.1	4.8	0.8	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
BikewayFinishing	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Demolition	Onsite	2020

Code	Structures	tons/day	Pounds per day								Tons per year								Metric tons per yea		
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
BikewayDemolition	Asphalt Paving	0						0.0	0.0							0.00	0.00				

Demolition		6	2021

Code	Structures	ar CO2e	Gal per year	Pounds per day								Tons per year								Metric tons per year			
				ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
BikewayDemolition	Asphalt Paving								0.0	0.0							0.0	0.0					

Demolition	7	2022	8	

Code	Structures	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year	
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG
BikewayDemolition	Asphalt Paving							0.0	0.0							0.0	0.0							

Demolition	2023																		9			

Code	Structures	Pounds per day							Tons per year								Metric tons per year				Gal per year			
		NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO
BikewayDemolition	Asphalt Paving					0.0	0.0							0.0	0.0									

Demolition	2024	10

Code	Structures	Pounds per day					Tons per year								Metric tons per year				Gal per year
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
BikewayDemolition	Asphalt Paving			0.0	0.0							0.0	0.0						

Roadway/Parking Lot Coatings

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 17

Element	**acre**	**Phase**
Bikeway	2.13	BikewayFinishing

Apaint = Apl x P%
Eap = EFap x Aparking

Unmitigated	BikewayFinishing	*description*
VOC Emissions (lbs/day)	8	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	8	
E (annual)	78	
EF -exterior	0.00695	emission factor (lbs per sq. ft.)
New construction (sf)	93,000	
Days of coatings	10	
Construction SF per day	9,300	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**150**	**VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	
	180	

	2020	
	Pounds per day	year
Phase	ROG	ROG
BikewayFinishing	7.8	0.0

Phase	Code	Start Date	End Date	Working Days	Days/Week	2020	2021	2022	2023	2024	2025
Bikeway											
Demolition	BikewayDemolition	1/1/2020	1/29/2020	20	5	**20**					
Site Preparation	BikewaySite Preparation	1/30/2020	2/4/2020	3	5	**3**					
Grading	BikewayGrading	2/5/2020	2/13/2020	6	5	**6**					
Paving	BikewayPaving	2/14/2020	2/28/2020	10	4	**10**					
Finishing	BikewayFinishing	3/2/2020	3/16/2020	10	5	**10**					

Offroad Calculations	Location	Onsite										
Mitigated								3	4	5	6	7
Phase	Equip	#/day	hrs/day	HP Bin	HP	LF	Fuel	Pounds per day				
								ROG	NOX	CO	PM10	PM2.5
Bikeway												
BikewayDemolition	Concrete/Industrial Saws	1	8	120	81	0.7	Diesel	0.1	2.4	3.9	0.1	0.1
BikewayDemolition	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	0.2	4.0	4.5	0.2	0.2
BikewayDemolition	Tractors/Loaders/Backhoes	3	8	120	97	0.4	Diesel	0.2	4.4	7.0	0.2	0.2
BikewaySite Preparation	Graders	1	8	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1
BikewaySite Preparation	Tractors/Loaders/Backhoes	1	7	120	97	0.4	Diesel	0.1	1.3	2.0	0.1	0.1
BikewaySite Preparation	Scrapers	1	8	500	367	0.5	Diesel	0.4	7.2	8.1	0.3	0.3
BikewayGrading	Rubber Tired Dozers	1	8	250	247	0.4	Diesel	0.2	4.0	4.5	0.2	0.2
BikewayGrading	Tractors/Loaders/Backhoes	2	7	120	97	0.4	Diesel	0.1	2.6	4.1	0.1	0.1
BikewayGrading	Graders	1	8	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1
BikewayPaving	Cement and Mortar Mixers	1	8	15	9	0.6	Diesel	0.1	0.4	0.3	0.0	0.0
BikewayPaving	Pavers	1	8	175	130	0.4	Diesel	0.1	2.2	2.5	0.1	0.1
BikewayPaving	Rollers	2	8	120	80	0.4	Diesel	0.1	2.5	3.9	0.1	0.1
BikewayPaving	Tractors/Loaders/Backhoes	1	8	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1
BikewayPaving	Paving Equipment	1	8	175	132	0.4	Diesel	0.1	1.9	2.1	0.1	0.1
BikewayFinishing	Air Compressors	1	6	120	78	0.5	Diesel	0.1	1.1	1.8	0.1	0.1

2020											6							
8							*9*	*10*	*11*			*3*	*4*	*5*	*6*	*7*	*8*	
	Tons per year						Metric tons per year				Gal per year	Pounds per day						
SO2	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	SO2	ROG
0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	5.4	527	0.1	2.4	3.9	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	7.5	726	0.2	4.0	4.5	0.2	0.2	0.0	0.0
0.0	0.0	0.0	0.1	0.0	0.0	0.0	8.2	0.0	0.0	8.3	798	0.2	4.4	7.0	0.2	0.2	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	85	0.2	3.1	3.5	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	35	0.1	1.3	2.0	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	196	0.4	7.2	8.1	0.3	0.3	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.3	218	0.2	4.0	4.5	0.2	0.2	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	140	0.1	2.6	4.1	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	1.8	171	0.2	3.1	3.5	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	22	0.1	0.4	0.3	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.1	200	0.1	2.2	2.5	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	2.3	223	0.1	2.5	3.9	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4	133	0.1	1.5	2.3	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	173	0.1	1.9	2.1	0.1	0.1	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3	125	0.1	1.1	1.8	0.1	0.1	0.0	0.0

2021									7	2022										
					9	10	11			3	4	5	6	7	8					
Tons per year					Metric tons per year				Gal per year	Pounds per day						Tons per year				
NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	SO2	ROG	NOX	CO	PM10	PM2.5
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	7.2	8.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.6	4.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.9	2.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

					8	2023														
	9	10	11			3	4	5	6	7	8							9	10	11
	Metric tons per year				Gal per	Pounds per day						Tons per year						Metric tons per ye		
SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	SO2	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O
0.0	0.0	0.0	0.0	0.0	0	0.1	2.4	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.4	7.2	8.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	2.6	4.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	1.9	2.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	9	2024												10				
		3	4	5	6	7	8							9	10	11		
ear	Gal per	Pounds per day						Tons per year						Metric tons per year				Gal per
CO2e	year	ROG	NOX	CO	PM10	PM2.5	SO2	ROG	NOX	CO	PM10	PM2.5	SO2	CO2	CH4	N2O	CO2e	year
0.0	0	0.1	2.4	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.2	4.4	7.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	1.3	2.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.4	7.2	8.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.2	4.0	4.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	2.6	4.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.2	3.1	3.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	2.2	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	2.5	3.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	1.5	2.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	1.9	2.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
0.0	0	0.1	1.1	1.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Roadway/Parking Lot Coatings **Mitigated**

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 17-1

Element	**acre**	**Phase**
Bikeway	2.13	BikewayFinishing

Apaint = Apl x P%
Eap = EFap x Aparking

Unmitigated	BikewayFinishing	*description*
VOC Emissions (lbs/day)	4	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	4	
E (annual)	39	
EF -exterior	0.00348	emission factor (lbs per sq. ft.)
New construction (sf)	93,000	
Days of coatings	10	
Construction SF per day	9,300	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**75**	**VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	
	180	

Mitigated

	2020	
	Pounds per day	**year**
Phase	**ROG**	**ROG**
BikewayFinishing	3.9	0.0

Construction by Component
City Program

Offroad Calculations	Location	Onsite																2020		
									3	4	5	6	7			8				
									Pounds per day											
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
City Rec																			
City RecMobilization/Demolition	AC Cold Planer	1	8	Paving Equipment	250	225	0.4	Diesel	0.3	4.5	1.8	0.2	0.1			0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Drill/ Auger rig	1	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.3	3.5	2.1	0.1	0.1			0.0	0.0	0.0	0.0
City RecDewatering/Shoring	*dewater pumps	6	24	Pumps	15	5	0.7	Electric	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Pile Driving Rig	2	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.6	7.1	4.2	0.2	0.2			0.0	0.0	0.1	0.0
City RecExcavation and Foundation	*dewater pumps	6	24	Pumps	15	5	0.7	Electric	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.1	0.0
City RecExcavation and Foundation	Grader	1	8	Graders	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.1	0.0
City RecExcavation and Foundation	Excavator	2	8	Excavators	175	158	0.4	Diesel	0.5	4.8	6.6	0.2	0.2			0.0	0.0	0.0	0.1
City RecExcavation and Foundation	Loader	2	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.8	8.9	3.3	0.3	0.3			0.0	0.0	0.1	0.0
City RecExcavation and Foundation	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0	0.0
City RecStructural Frame	*Tower Crane	1	10	Cranes	120	75	0.3	Electric	0.3	3.0	2.0	0.2	0.2			0.0	0.0	0.1	0.1
City RecStructural Frame	*crane low-rise	1	10	Cranes	120	60	0.3	Electric	0.3	2.4	1.6	0.2	0.2			0.0	0.0	0.1	0.0
City RecStructural Frame	*Concrete Pump	1	10	Pumps	120	60	0.7	Electric	0.4	3.2	3.4	0.2	0.2			0.0	0.0	0.1	0.1
City RecStructural Frame	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.4	3.5	3.8	0.2	0.2			0.0	0.0	0.1	0.1
City RecStructural Frame	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.3	3.5	4.6	0.1	0.1			0.0	0.0	0.1	0.1
City RecStructural Frame	15T Wheeled Hydro Crane	1	8	Cranes	250	231	0.3	Diesel	0.5	5.4	2.1	0.2	0.2			0.0	0.0	0.1	0.1
City RecStructural Frame	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.1	0.1
City RecExterior Closure and Roofing	Boom Lifts	5	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.2	5.4	0.1	0.1			0.0	0.0	0.1	0.2
City RecExterior Closure and Roofing	*Man/ Material Hoist	4	10	Aerial Lifts	15	10	0.3	Electric	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.3	3.5	4.6	0.1	0.1			0.0	0.0	0.1	0.2
City RecInterior Construction/ Finishes	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0	0.1
City RecInterior Construction/ Finishes	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.8	6.5	0.1	0.1			0.0	0.0	0.1	0.2
City RecMEP Systems	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0	0.0
City RecMEP Systems	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.8	6.5	0.1	0.1			0.0	0.0	0.0	0.1
City RecOffsite Demolition / Grading / Utilities	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	skid steer	2	8	Skid Steer Loaders	120	65	0.4	Diesel	0.2	2.1	2.8	0.1	0.1			0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0	0.0
City RecSite Improvements	Asphalt Paver	1	8	Pavers	175	130	0.4	Diesel	0.3	2.8	2.9	0.1	0.1			0.0	0.0	0.0	0.0
City RecSite Improvements	Vibratory roller	2	8	Rollers	120	80	0.4	Diesel	0.4	4.1	3.7	0.3	0.2			0.0	0.0	0.0	0.0
City RecSite Improvements	Backhoe/ loader	3	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.6	6.3	6.8	0.4	0.4			0.0	0.0	0.0	0.0
City RecSite Improvements	Excavator	1	8	Excavators	175	158	0.4	Diesel	0.2	2.4	3.3	0.1	0.1			0.0	0.0	0.0	0.0
City RecSite Improvements	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0	0.0
City RecSite Improvements	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0	0.0
City RecSite Improvements	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.4	3.5	3.8	0.2	0.2			0.0	0.0	0.0	0.0
City RecArch Coatings	Air Compressors	1	6	Air Compressors	120	78	0.5	Diesel	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0	0.0

Offroad Calculations	Location	Onsite																2020		
									3	4	5	6	7			8				
									Pounds per day											
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
City Road																				
City RoadDemolition	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0
City RoadDemolition	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.1	0.1
City RoadDemolition	RT Loader	1	8	Rubber Tired Loaders	250	199	0.4	Diesel	0.4	4.3	1.6	0.1	0.1			0.0	0.0	0.0	0.0
City RoadDemolition	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0
City RoadWater Truck	Water Truck	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.7	6.3	3.8	0.2	0.2			0.0	0.0	0.0	0.0
City RoadGrading	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.0	0.0
City RoadGrading	RT Loader	1	8	Rubber Tired Loaders	120	97	0.4	Diesel	0.3	2.9	2.4	0.2	0.2			0.0	0.0	0.0	0.0
City RoadGrading	Scrapers	2	8	Scrapers	500	361	0.5	Diesel	2.0	23.2	14.7	0.9	0.8			0.0	0.0	0.1	0.1
City RoadUtilities	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0
City RoadUtilities	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0
City RoadPaving	Grader	1	8	Graders	175	174	0.4	Diesel	0.7	6.9	4.5	0.4	0.4			0.0	0.0	0.1	0.0
City RoadPaving	Paver	1	8	Pavers	175	125	0.4	Diesel	0.3	2.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0
City RoadPaving	Roller	1	8	Rollers	120	80	0.4	Diesel	0.2	2.1	1.9	0.1	0.1			0.0	0.0	0.0	0.0
City RoadPaving	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0
City RoadFinishing	Bore/Drill Rigs	1	8	Bore/Drill Rigs	250	205	0.5	Diesel	0.3	3.3	1.9	0.1	0.1			0.0	0.0	0.0	0.0
City RoadFinishing	Cranes	1	8	Cranes	250	226	0.3	Diesel	0.4	5.2	2.1	0.2	0.2			0.0	0.0	0.0	0.0
City RoadFinishing	Off-Highway Trucks	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.7	6.3	3.8	0.2	0.2			0.0	0.0	0.0	0.0
City RoadFinishing	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0

Offroad Calculations										6									2021						
						9	10	11			3	4	5	6	7			8							
Phase	Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year						
	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
City Rec																									
City RecMobilization/Demolition	0.0	0.0			0.0	0.9	0.0	0.0	0.9	89	0.3	3.6	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecMobilization/Demolition	0.0	0.0			0.0	0.8	0.0	0.0	0.8	81	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecMobilization/Demolition	0.0	0.0			0.0	0.4	0.0	0.0	0.4	40	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecDewatering/Shoring	0.0	0.0			0.0	0.8	0.0	0.0	0.8	81	0.3	3.0	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecDewatering/Shoring	0.0	0.0			0.0	0.6	0.0	0.0	0.6	59	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0		
City RecDewatering/Shoring	0.0	0.0			0.0	0.6	0.0	0.0	0.6	54	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	16.6	0.0	0.0	16.8	1625	0.5	6.1	4.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	6.1	0.0	0.0	6.1	593	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	5.8	0.0	0.0	5.9	569	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	9.1	0.0	0.0	9.3	893	0.5	4.3	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	11.0	0.0	0.0	11.2	1081	0.7	7.8	3.2	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExcavation and Foundation	0.0	0.0			0.0	5.4	0.0	0.0	5.5	532	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	5.6	0.0	0.0	5.7	547	0.3	2.7	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	4.5	0.0	0.0	4.5	438	0.2	2.2	1.5	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	13.9	0.0	0.0	14.0	1359	0.3	2.9	3.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	15.5	0.0	0.0	15.7	1522	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	16.7	0.0	0.0	17.0	1639	0.2	3.2	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	13.8	0.0	0.0	14.1	1356	0.4	4.8	2.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecStructural Frame	0.0	0.0			0.0	7.5	0.0	0.0	7.6	732	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExterior Closure and Roofing	0.0	0.0			0.0	24.2	0.0	0.0	24.6	2370	0.2	3.0	5.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExterior Closure and Roofing	0.0	0.0			0.0	4.3	0.0	0.0	4.3	418	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
City RecExterior Closure and Roofing	0.0	0.0			0.0	20.1	0.0	0.0	20.4	1967	0.2	3.2	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecInterior Construction/ Finishes	0.0	0.0			0.0	8.4	0.0	0.0	8.5	819	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecInterior Construction/ Finishes	0.0	0.0			0.0	24.2	0.0	0.0	24.6	2370	0.2	3.6	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecMEP Systems	0.0	0.0			0.0	2.7	0.0	0.0	2.8	268	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecMEP Systems	0.0	0.0			0.0	7.9	0.0	0.0	8.0	776	0.2	3.6	6.5	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0		
City RecOffsite Demolition / Grading / Utilities	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0		
City RecOffsite Demolition / Grading / Utilities	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.1	0.0	0.0	
City RecOffsite Demolition / Grading / Utilities	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecOffsite Demolition / Grading / Utilities	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.1	0.0	0.0	
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.6	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.8	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	5.7	6.8	0.3	0.3			0.0	0.0	0.0	0.0	0.1	0.0	0.0	
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.2	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RecSite Improvements	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RecArch Coatings	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		

Offroad Calculations										6									2021						
						9	10	11			3	4	5	6	7			8							
Phase	Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year						
	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
City Road																									
City RoadDemolition	0.0	0.0			0.0	4.7	0.0	0.0	4.7	458	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	0.0	0.0			0.0	7.7	0.0	0.0	7.9	758	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	0.0	0.0			0.0	5.4	0.0	0.0	5.5	530	0.3	3.8	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	0.0	0.0			0.0	1.8	0.0	0.0	1.8	174	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadWater Truck	0.0	0.0			0.0	4.6	0.0	0.0	4.7	454	0.6	5.3	3.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadGrading	0.0	0.0			0.0	3.1	0.0	0.0	3.1	303	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadGrading	0.0	0.0			0.0	1.0	0.0	0.0	1.1	102	0.3	2.6	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadGrading	0.0	0.0			0.0	10.5	0.0	0.0	10.7	1031	1.8	21.2	13.8	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadUtilities	0.0	0.0			0.0	0.5	0.0	0.0	0.5	46	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadUtilities	0.0	0.0			0.0	0.3	0.0	0.0	0.3	27	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadPaving	0.0	0.0			0.0	4.9	0.0	0.0	5.0	479	0.6	6.1	4.5	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadPaving	0.0	0.0			0.0	3.5	0.0	0.0	3.6	346	0.2	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadPaving	0.0	0.0			0.0	2.0	0.0	0.0	2.1	201	0.2	1.9	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadPaving	0.0	0.0			0.0	1.6	0.0	0.0	1.6	157	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	0.0	0.0			0.0	0.4	0.0	0.0	0.4	38	0.2	2.8	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	0.0	0.0			0.0	0.2	0.0	0.0	0.3	24	0.4	4.7	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	0.0	0.0			0.0	0.6	0.0	0.0	0.6	57	0.6	5.3	3.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	0.0	0.0			0.0	0.1	0.0	0.0	0.1	13	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0		

Offroad Calculations						7								2022											8
		9	10	11			3	4	5	6	7		8									9	10	11	
Phase		Metric tons per year				Gal per	Pounds per day							Tons per year								Metric tons per year				Gal per
	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year
City Rec																										
City RecMobilization/Demolition	0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	0.0	0.0	0.0	0.0	0.0	0	0.2	2.3	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	0.0	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.5	4.6	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.4	5.2	1.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.4	3.6	6.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.6	6.1	3.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.4	3.0	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.4	4.2	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	0.0	0.0	0.0	0.0	0.0	0	0.2	2.8	5.4	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	0.0	3.0	0.0	0.0	3.1	298	0.1	1.5	2.3	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	0.0	8.8	0.0	0.0	8.9	862	0.2	3.3	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	0.0	7.2	0.0	0.0	7.3	703	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	0.0	7.1	0.0	0.0	7.2	692	0.3	3.3	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	0.0	4.7	0.0	0.0	4.8	461	0.1	1.8	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	0.0	7.1	0.0	0.0	7.2	692	0.3	3.3	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	3.3	0.0	0.0	3.3	320	0.2	2.1	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	3.6	0.0	0.0	3.7	357	0.3	3.4	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	6.5	0.0	0.0	6.6	639	0.5	5.0	6.7	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	3.6	0.0	0.0	3.7	357	0.2	1.8	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	4.3	0.0	0.0	4.4	426	0.3	3.3	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	2.4	0.0	0.0	2.5	238	0.1	1.5	2.3	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.0	4.5	0.0	0.0	4.6	443	0.4	3.0	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	0.0	2.6	0.0	0.0	2.6	250	0.2	1.4	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations						7	2022																	8
		9	10	11			3	4	5	6	7		8								9	10	11	
Phase		Metric tons per year				Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per
	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year
City Road																										
City RoadDemolition	0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	0.0	0.0	0.0	0.0	0.0	0	0.8	8.5	6.9	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	0.0	0.0	0.0	0.0	0.0	0	0.8	8.5	6.9	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	0.0	0.0	0.0	0.0	0.0	0	1.6	17.7	12.6	0.7	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	0.0	0.0	0.0	0.0	0.0	0	0.6	5.2	4.4	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	2.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations	2023																	9						
	3	4	5	6	7			8							9	10	11			3	4	5	6	7	
Phase	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day					
	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D
City Rec																										
City RecMobilization/Demolition	0.2	2.7	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	1.6	0.1	0.1	
City RecMobilization/Demolition	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1	
City RecMobilization/Demolition	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1	
City RecDewatering/Shoring	0.2	2.0	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	2.0	0.1	0.1	
City RecDewatering/Shoring	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2	
City RecDewatering/Shoring	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1	
City RecExcavation and Foundation	0.4	4.1	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.8	4.1	0.1	0.1	
City RecExcavation and Foundation	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2	
City RecExcavation and Foundation	0.4	4.6	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1	
City RecExcavation and Foundation	0.4	3.1	6.5	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	2.8	6.6	0.1	0.1	
City RecExcavation and Foundation	0.5	5.3	3.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.7	3.0	0.2	0.1	
City RecExcavation and Foundation	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1	
City RecStructural Frame	0.3	2.3	1.9	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.2	1.9	0.1	0.1	
City RecStructural Frame	0.2	1.9	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	1.5	0.1	0.1	
City RecStructural Frame	0.3	2.5	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	3.3	0.1	0.1	
City RecStructural Frame	0.3	2.8	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	3.7	0.1	0.1	
City RecStructural Frame	0.2	2.8	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.7	4.6	0.1	0.1	
City RecStructural Frame	0.3	3.8	1.8	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.5	1.8	0.1	0.1	
City RecStructural Frame	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1	
City RecExterior Closure and Roofing	0.2	2.7	5.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.6	5.4	0.0	0.0	
City RecExterior Closure and Roofing	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0	
City RecExterior Closure and Roofing	0.2	2.8	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.7	4.6	0.1	0.1	
City RecInterior Construction/ Finishes	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0	
City RecInterior Construction/ Finishes	0.2	3.2	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	6.5	0.1	0.0	
City RecMEP Systems	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0	
City RecMEP Systems	0.2	3.2	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	6.5	0.1	0.0	
City RecOffsite Demolition / Grading / Utilities	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1	
City RecOffsite Demolition / Grading / Utilities	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1	
City RecOffsite Demolition / Grading / Utilities	0.1	1.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.8	0.1	0.0	
City RecOffsite Demolition / Grading / Utilities	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1	
City RecSite Improvements	0.2	1.9	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.9	0.1	0.1	
City RecSite Improvements	0.3	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	3.7	0.2	0.1	
City RecSite Improvements	0.5	4.6	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.3	6.7	0.2	0.2	
City RecSite Improvements	0.2	1.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.3	0.1	0.1	
City RecSite Improvements	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1	
City RecSite Improvements	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0	
City RecSite Improvements	0.3	2.8	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	3.7	0.1	0.1	
City RecArch Coatings	0.2	1.3	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.2	1.8	0.1	0.1	

Offroad Calculations	2023																	9							
	3	4	5	6	7			8								9	10	11			3	4	5	6	7	
Phase	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day					
	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D
City Road																										
City RoadDemolition	0.2	1.6	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1	
City RoadDemolition	0.8	7.8	6.6	0.4	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3	
City RoadDemolition	0.3	2.6	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1	
City RoadDemolition	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0	
City RoadWater Truck	0.5	3.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.3	3.3	0.1	0.1	
City RoadGrading	0.8	7.8	6.6	0.4	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3	
City RoadGrading	0.3	2.2	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	2.4	0.1	0.1	
City RoadGrading	1.6	16.4	12.1	0.6	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.5	15.2	11.8	0.6	0.6	
City RoadUtilities	0.2	1.6	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1	
City RoadUtilities	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1	
City RoadPaving	0.5	4.4	4.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	4.3	0.2	0.2	
City RoadPaving	0.2	1.8	2.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.8	0.1	0.1	
City RoadPaving	0.2	1.6	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	1.8	0.1	0.1	
City RoadPaving	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0	
City RoadFinishing	0.2	1.9	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	1.9	0.1	0.1	
City RoadFinishing	0.3	3.7	1.8	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	1.7	0.1	0.1	
City RoadFinishing	0.5	3.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.3	3.3	0.1	0.1	
City RoadFinishing	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1	

Offroad Calculations	2024														10
		8									9	10	11		
Phase	Tons per year										Metric tons per year				Gal per year
	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec															
City RecMobilization/Demolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations	2024														10
		8									9	10	11		
Phase	Tons per year										Metric tons per year				Gal per year
	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Road															
City RoadDemolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing		0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Demolition	Onsite	2020

Code	Structures	tons/day	Pounds per day								Tons per year								M
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2
City Rec																			
City RecMobilization/Demolition		220						4.8	0.7							0.0	0.0		
City RecOffsite Demolition / Grading / Utilities		17						0.4	0.1							0.0	0.0		
City Road																			
City RoadDemolition	Asphalt Paving	7						0.2	0.0							0.0	0.0		

Demolition			6	2021																			
Code	letric tons per year			Gal per year	Pounds per day								Tons per year								Metric tons per year			
	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
City Rec																								
City RecMobilization/Demolition										4.8	0.7							0.0	0.0					
City RecOffsite Demolition / Grading / Utilities										0.4	0.1							0.0	0.0					
City Road																								
City RoadDemolition										0.2	0.0							0.0	0.0					

Demolition	7	2022																			8	
Code	**Gal per year**	**Pounds per day**								**Tons per year**								**Metric tons per year**				**Gal per year**	
		ROG	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**CO2**	**CH4**	**N2O**	**CO2e**		**ROG**
City Rec																							
City RecMobilization/Demolition							4.8	0.7							0.0	0.0							
City RecOffsite Demolition / Grading / Utilities							0.4	0.1							0.0	0.0							
City Road																							
City RoadDemolition							0.2	0.0							0.0	0.0							

Demolition	2023																		9			
Code	Pounds per day							Tons per year								Metric tons per year				Gal per year			
	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO
City Rec																							
City RecMobilization/Demolition					4.8	0.7							0.0	0.0									
City RecOffsite Demolition / Grading / Utilities					0.4	0.1							0.0	0.0									
City Road																							
City RoadDemolition					0.2	0.0							0.0	0.0									

Demolition	2024	10

Code	Pounds per day					Tons per year								Metric tons per year				Gal per year
	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec																		
City RecMobilization/Demolition			4.8	0.7							0.0	0.0						
City RecOffsite Demolition / Grading / Utilities			0.4	0.1							0.0	0.0						
City Road																		
City RoadDemolition			0.2	0.0							0.0	0.0						

Labor Calculations	Offsite						2020												
							13	14	15	16	17	18	19	20					
							2	3	4	5	7	6	8	9					
Code	Vehicles/ day	Single Trips/day	Miles/day	Vehicle	Vehicle Type	Fuel	Pounds per day								Tons per year				
							ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
City Rec																			
City RecMobilization/Demolition	10	20	216	Employee	LDA-LDT	Gas	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	15	30	324	Employee	LDA-LDT	Gas	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	15	30	324	Employee	LDA-LDT	Gas	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	45	90	972	Employee	LDA-LDT	Gas	0.2	0.2	2.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	30	60	648	Employee	LDA-LDT	Gas	0.1	0.1	1.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	55	110	1188	Employee	LDA-LDT	Gas	0.3	0.2	2.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	20	40	432	Employee	LDA-LDT	Gas	0.1	0.1	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	63	125	1350	Employee	LDA-LDT	Gas	0.3	0.3	3.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	58	115	1242	Employee	LDA-LDT	Gas	0.3	0.2	2.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	30	60	648	Employee	LDA-LDT	Gas	0.1	0.1	1.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	10	20	216	Employee	LDA-LDT	Gas	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City Road																			
City RoadDemolition	9	18	194	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	0	0	0	Employee	LDA-LDT	Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations				6	2021																	
	21	22	23		13	14	15	16	17	18	19	20									21	22	23
	10	11	12		2	3	4	5	7	6	8	9									10	11	12
Code	Metric tons per year					Gal per	Pounds per day								Tons per year								Metric tons per yea		
	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
City Rec																									
City RecMobilization/Demolition	0.0	0.2	0.0	0.0	0.2	23	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	0.0	0.2	0.0	0.0	0.2	23	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	0.0	2.0	0.0	0.0	2.0	227	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	0.0	16.4	0.0	0.0	16.6	1871	0.2	0.2	2.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	0.0	13.1	0.0	0.0	13.3	1497	0.1	0.1	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	0.0	13.1	0.0	0.0	13.3	1497	0.2	0.2	2.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	0.0	7.3	0.0	0.0	7.4	832	0.1	0.1	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	0.0	7.5	0.0	0.0	7.5	851	0.3	0.2	2.9	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0
City RecPhase Completion Work	0.0	0.0	0.0	0.0	0.0	0	0.3	0.2	2.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
City RecSite Improvements	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0
City RecArch Coatings	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
City Road																									
City RoadDemolition	0.0	1.2	0.0	0.0	1.2	136	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	0.0	0.3	0.0	0.0	0.3	36	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	0.0	0.1	0.0	0.0	0.1	8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	0.0	0.6	0.0	0.0	0.6	68	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations		7	2022																				8		
			13	14	15	16	17	18	19	20									21	22	23			13	14
			2	3	4	5	7	6	8	9									10	11	12			2	3
Code	ar	Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per		
	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX
City Rec																									
City RecMobilization/Demolition	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RecDewatering/Shoring	0.0	0	0.1	0.1	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0
City RecExcavation and Foundation	0.0	0	0.1	0.1	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0
City RecStructural Frame	0.0	0	0.2	0.2	1.9	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.1
City RecExterior Closure and Roofing	0.0	0	0.1	0.1	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1
City RecInterior Rough-In (Elev./MEP/Framing)	0.0	0	0.2	0.2	2.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2
City RecInterior Construction/ Finishes	0.0	0	0.1	0.1	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1
City RecMEP Systems	8.1	919	0.3	0.2	2.7	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2
City RecPhase Completion Work	5.6	634	0.2	0.2	2.4	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2
City RecOffsite Demolition / Grading / Utilities	1.3	143	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RecSite Improvements	3.1	353	0.1	0.1	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1
City RecArch Coatings	1.3	147	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City Road																									
City RoadDemolition	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RoadWater Truck	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RoadGrading	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RoadUtilities	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RoadPaving	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
City RoadFinishing	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0

Labor Calculations	2023																	9						
	15	16	17	18	19	20									21	22	23			13	14	15	16	17
	4	5	7	6	8	9									10	11	12			2	3	4	5	7
Code	Pounds per day						Tons per year								Metric tons per year				Gal per	Pounds per d				
	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5
City Rec																								
City RecMobilization/Demolition	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0
City RecDewatering/Shoring	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0
City RecExcavation and Foundation	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0
City RecStructural Frame	1.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.1	1.7	0.0	0.0
City RecExterior Closure and Roofing	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.1	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	2.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.1	2.1	0.0	0.0
City RecInterior Construction/ Finishes	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.7	0.0	0.0
City RecMEP Systems	2.5	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.3	0.0	0.0
City RecPhase Completion Work	2.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.2	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0
City RecSite Improvements	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.1	0.0	0.0
City RecArch Coatings	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0
City Road																								
City RoadDemolition	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0
City RoadWater Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0
City RoadUtilities	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0
City RoadPaving	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0
City RoadFinishing	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0

Labor Calculations	2024															10
	18	19	20									21	22	23		
	6	8	9									10	11	12		
Code	ay			Tons per year								Metric tons per year				Gal per year
	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec																
City RecMobilization/Demolition	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Rough-In (Elev./MEP/Framing)	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecPhase Completion Work	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City Road																
City RoadDemolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Routine & As-Needed Onroad Calculations — 2020

			Yearly		Daily																
											13	14	15	16	17	18	19	20			
											2	3	4	5	7	6	8	9			
											Pounds per day										
Code	**Trip Type**	**Total Trucks**	**Single Trips/day Yearly**	**Miles/day Yearly**	**Vehicles/day Daily**	**Single Trips/day Daily**	**Miles/day Daily**	**Vehicle**	**Vehicle Type**	**Fuel**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**	**ROG**	**NOX**	**CO**
City Rec																					
City RecMobilization/Demolition	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Vendor	100	10	73	5	10	73	General Truck	T7	Diesel	0.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	Vendor	780	28	207	15	30	219	General Truck	T7	Diesel	0.3	4.2	0.9	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0
City RecExterior Closure and Roofing	Vendor	120	4	27	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Vendor	60	3	24	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Vendor	30	1	8	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Vendor	20	1	8	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Vendor	30	4	29	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Vendor	32	4	29	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Material	15	10	200	5	10	200	General Truck	T7	Diesel	0.2	3.5	0.7	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Material	6	6	120	3	6	120	General Truck	T7	Diesel	0.1	2.1	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Material	460	46	920	23	46	920	General Truck	T7	Diesel	1.1	16.1	3.1	0.3	0.3	0.4	0.1	0.0	0.0	0.2	0.0
City RecStructural Frame	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Material	10	1	15	1	2	40	General Truck	T7	Diesel	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City Road																					
City RoadDemolition	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Vendor	8	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Vendor	2	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Vendor	18	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Vendor	1	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadDemolition	Material	23	2	46	2	4	80	General Truck	T7	Diesel	0.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Material	26	7	130	4	8	160	General Truck	T7	Diesel	0.2	2.8	0.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Material	18	2	40	1	2	40	General Truck	T7	Diesel	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations											6									2021							
							21	22	23			13	14	15	16	17	18	19	20								
							10	11	12			2	3	4	5	7	6	8	9								
		Tons per year					Metric tons per year					Pounds per day								Tons per year							
Code	Trip Type	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
City Rec																										
City RecMobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	3.1	287	0.1	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	Vendor	0.0	0.0	0.0	0.0	0.0	22.9	0.0	0.0	24.0	2241	0.2	3.7	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Vendor	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.7	345	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.8	172	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	86	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	28	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Material	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	1.2	114	0.2	3.0	0.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Material	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	45	0.1	1.8	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Material	0.0	0.0	0.0	0.0	0.0	35.6	0.0	0.0	37.3	3487	0.9	14.0	2.8	0.2	0.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City Road																										
City RoadDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	23	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	6	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.6	52	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadDemolition	Material	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.9	173	0.1	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Material	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.1	198	0.2	2.4	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Material	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.5	136	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations							7	2022																	
		21	22	23				13	14	15	16	17	18	19	20									21	22	23	
		10	11	12				2	3	4	5	7	6	8	9									10	11	12	
		Metric tons per year						Pounds per day								Tons per year								Metric tons per year			
Code	Trip Type	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
City Rec																											
City RecMobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.1	2.8	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Vendor	0.0	0.3	0.0	0.0	0.3	31	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Vendor	0.0	0.9	0.0	0.0	0.9	85	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Vendor	0.0	0.9	0.0	0.0	1.0	91	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Material	0.0	0.0	0.0	0.0	0.0	0	0.1	2.3	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Material	0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Material	0.0	0.0	0.0	0.0	0.0	0	0.4	10.4	1.8	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Material	0.0	0.8	0.0	0.0	0.8	75	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City Road																											
City RoadDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadDemolition	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadGrading	Material	0.0	0.0	0.0	0.0	0.0	0	0.1	1.8	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadUtilities	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadPaving	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
City RoadFinishing	Material	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations		8									2023												9				
			13	14	15	16	17	18	19	20									21	22	23			13	14	15	16
			2	3	4	5	7	6	8	9									10	11	12			2	3	4	5
			Pounds per day								Tons per year								Metric tons per year					Pound			
Code	Trip Type	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10
City Rec																											
City RecMobilization/Demolition	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Vendor	0	0.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.2	0.0
City RecStructural Frame	Vendor	0	0.0	2.3	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	2.3	0.5	0.0
City RecExterior Closure and Roofing	Vendor	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Vendor	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RecInterior Construction/ Finishes	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RecMEP Systems	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RecPhase Completion Work	Vendor	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RecOffsite Demolition / Grading / Utilities	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecSite Improvements	Vendor	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RecArch Coatings	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Material	0	0.0	1.7	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.7	0.3	0.0
City RecDewatering/Shoring	Material	0	0.0	1.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	0.2	0.0
City RecExcavation and Foundation	Material	0	0.1	8.0	1.4	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	7.9	1.4	0.0
City RecStructural Frame	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecInterior Rough-In (Elev./MEP/Framing)	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecInterior Construction/ Finishes	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecMEP Systems	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecPhase Completion Work	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Material	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RecSite Improvements	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RecArch Coatings	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City Road																											
City RoadDemolition	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RoadWater Truck	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RoadGrading	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RoadUtilities	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RoadPaving	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RoadFinishing	Vendor	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0
City RoadDemolition	Material	0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.1	0.0
City RoadWater Truck	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RoadGrading	Material	0	0.0	1.4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.4	0.2	0.0
City RoadUtilities	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
City RoadPaving	Material	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0
City RoadFinishing	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0

Routine & As-Needed Onroad Calculations		2024																10
		17	18	19	20									21	22	23		
		7	6	8	9									10	11	12		
		s per day				Tons per year								Metric tons per year				
Code	Trip Type	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year
City Rec																		
City RecMobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Vendor	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecPhase Completion Work	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	Material	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Material	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Material	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecPhase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City Road																		
City RoadDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	Material	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Earthmoving/Paving Calculations	Location	Onsite		2020															
Code	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Pounds per day								Tons per year							M
				ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2
City Rec																				
City RecMobilization/Demolition		70	0	0.0					0.0	0.0		0.0					0.0	0.0		
City RecDewatering/Shoring		42	0	0.0					0.0	0.0		0.0					0.0	0.0		
City RecExcavation and Foundation	0.15	335	8	0.0					6.2	3.3		0.0					0.1	0.0		
City RecSite Improvements		0	0	0.0					0.0	0.0		0.0					0.0	0.0		
City Road																				
City RoadGrading	0.04	52	8	0.0					6.1	3.3		0.0					0.0	0.0		
City RoadPaving		0	0	0.0					0.0	0.0		0.0					0.0	0.0		

Earthmoving/Paving Calculations				6	2021																	
Code	Metric tons per year			Gal per year	Pounds per day								Tons per year								Metric tons per year			
	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
City Rec																								
City RecMobilization/Demolition					0.0					0.0	0.0		0.0					0.0	0.0					
City RecDewatering/Shoring					0.0					0.0	0.0		0.0					0.0	0.0					
City RecExcavation and Foundation					0.0					6.2	3.3		0.0					0.0	0.0					
City RecSite Improvements					0.0					0.0	0.0		0.0					0.0	0.0					
City Road																								
City RoadGrading					0.0					6.1	3.3		0.0					0.0	0.0					
City RoadPaving					0.0					0.0	0.0		0.0					0.0	0.0					

Earthmoving/Paving Calculations	7	2022																	8		
Code	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year		
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX
City Rec																								
City RecMobilization/Demolition		0.0					0.0	0.0		0.0					0.0	0.0							0.0	
City RecDewatering/Shoring		0.0					0.0	0.0		0.0					0.0	0.0							0.0	
City RecExcavation and Foundation		0.0					6.2	3.3		0.0					0.0	0.0							0.0	
City RecSite Improvements		0.0					0.0	0.0		0.0					0.0	0.0							0.0	
City Road																								
City RoadGrading		0.0					6.1	3.3		0.0					0.0	0.0							0.0	
City RoadPaving		0.0					0.0	0.0		0.0					0.0	0.0							0.0	

Earthmoving/Paving Calculations	2023																	9					
Code	Pounds per day						Tons per year								Metric tons per year				Gal per year	Pounds per day				
	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5
City Rec																								
City RecMobilization/Demolition				0.0	0.0		0.0					0.0	0.0							0.0				
City RecDewatering/Shoring				0.0	0.0		0.0					0.0	0.0							0.0				
City RecExcavation and Foundation				6.2	3.3		0.0					0.0	0.0							0.0				
City RecSite Improvements				0.0	0.0		0.0					0.0	0.0							0.0				
City Road																								
City RoadGrading				6.1	3.3		0.0					0.0	0.0							0.0				
City RoadPaving				0.0	0.0		0.0					0.0	0.0							0.0				

Earthmoving/Paving Calculations	2024															10
Code	Tons per year											Metric tons per year				Gal per year
	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec																
City RecMobilization/Demolition	0.0	0.0		0.0					0.0	0.0						
City RecDewatering/Shoring	0.0	0.0		0.0					0.0	0.0						
City RecExcavation and Foundation	6.2	3.3		0.0					0.0	0.0						
City RecSite Improvements	0.0	0.0		0.0					0.0	0.0						
City Road																
City RoadGrading	6.1	3.3		0.0					0.0	0.0						
City RoadPaving	0.0	0.0		0.0					0.0	0.0						

Roadway/Parking Lot Coatings

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix

Apaint = Apl x P%
Eap = EFap x Aparking

Phase		
	City RoadFinishing	
Unmitigated	City RoadFinishing	*description*
VOC Emissions (lbs/day)	12	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	12	
E (annual)	12	
EF -exterior	0.00695	emission factor (lbs per sq. ft.)
New construction (sf)	14,000	
Days of coatings	1	
Construction SF per day	14,000	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**150**	**VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	
	180	

Building Coatings

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 15-16

Eac = Efac x F x Apaint
EFac = Cvoc / 454 (g/lb) x 3.875 (L/GAL) / 180 (sqft)

Unmitigated	City RecArch Coatings	*description*
VOC Emissions (lbs/day)	175	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	1.7	
Eexterior (day)	131	
Einterior (day)	44	
Eexterior (annual)	2,620	
Einterior (annual)	873	
EF -exterior	0.00712	emission factor (lbs per sq. ft.)
EF - interior	0.00712	emission factor (lbs per sq. ft.)
New construction (sf)	245,300	
Days of coatings	20	
Construction SF per day	12,265	ft2
Fraction exterior	75%	exterior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Fraction interior	25%	interior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Cext	**150**	**Exterior VOC content (g/L)**
Cint	**150**	**Interior VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.87541178	
	180	

Coatings

	2020		2021		2022		2023		2024	
Phase	Pounds per day ROG	Tons per year ROG	Pounds per day ROG	Tons per year ROG	Pounds per day ROG	Tons per year ROG	Pounds per day ROG	Tons per year ROG	Pounds per day ROG	Tons per year ROG
City RecArch Coatings	174.6	0.00	174.6	1.7	174.6	0.0	174.6	0.0	174.6	0.0
City RoadFinishing	11.7	0.0	11.7	0.0	11.7	0.0	11.7	0.0	11.7	0.0

Offroad Calculations Location Onsite

Mitigated

Phase	Equip	#/day	hrs/day	RT Load	CMOD	HP Bin	HP	LF	Fuel	3	4	5	6	7			8	2020			
										Pounds per day								Tons p			
										ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10
City Rec																					
City RecMobilization/Demolition	AC Cold Planer	1	8		Paving Equipment	250	225	0.4	Diesel	0.2	3.3	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Loader	1	8		Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecMobilization/Demolition	Backhoe Loader	1	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Drill/ Auger rig	1	8		Bore/Drill Rigs	250	221	0.5	Diesel	0.2	4.5	5.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	*dewater pumps	6	24		Pumps	15	5	0.7	Electric	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.0	0.0	0.0
City RecDewatering/Shoring	Loader	1	8		Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Pile Driving Rig	2	8		Bore/Drill Rigs	250	221	0.5	Diesel	0.5	9.1	10.2	0.3	0.3			0.0	0.0	0.1	0.1	0.0
City RecExcavation and Foundation	*dewater pumps	6	24		Pumps	15	5	0.7	Electric	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.1	0.0	0.0
City RecExcavation and Foundation	Grader	1	8		Graders	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecExcavation and Foundation	Excavator	2	8		Excavators	175	158	0.4	Diesel	0.3	4.9	5.5	0.2	0.2			0.0	0.0	0.0	0.1	0.0
City RecExcavation and Foundation	Loader	2	8		Rubber Tired Loaders	250	203	0.4	Diesel	0.3	6.0	6.7	0.2	0.2			0.0	0.0	0.1	0.1	0.0
City RecExcavation and Foundation	Backhoe Loader	2	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	*Tower Crane	1	10		Cranes	120	75	0.3	Electric	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	*crane low-rise	1	10		Cranes	120	60	0.3	Electric	0.0	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0
City RecStructural Frame	*Concrete Pump	1	10		Pumps	120	60	0.7	Electric	0.1	2.3	3.6	0.1	0.1			0.0	0.0	0.1	0.1	0.0
City RecStructural Frame	Mobile Concrete Pump	1	8		Pumps	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.1	0.1	0.0
City RecStructural Frame	All Terrain Forklifs	2	8		Rough Terrain Forklifts	120	100	0.4	Diesel	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.1	0.1	0.0
City RecStructural Frame	15T Wheeled Hydro Crane	1	8		Cranes	250	231	0.3	Diesel	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.1	0.1	0.0
City RecStructural Frame	Backhoe Loader	1	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.1	0.0
City RecExterior Closure and Roofing	Boom Lifts	5	8		Aerial Lifts	120	63	0.3	Diesel	0.2	4.0	6.3	0.2	0.2			0.0	0.0	0.1	0.2	0.0
City RecExterior Closure and Roofing	*Man/ Material Hoist	4	10		Aerial Lifts	15	10	0.3	Electric	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0
City RecExterior Closure and Roofing	All Terrain Forklifs	2	8		Rough Terrain Forklifts	120	100	0.4	Diesel	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.1	0.2	0.0
City RecInterior Construction/ Finishes	All Terrain Forklifs	1	8		Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.1	0.0
City RecInterior Construction/ Finishes	Scissor Lift	6	8		Aerial Lifts	120	63	0.3	Diesel	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.1	0.2	0.0
City RecMEP Systems	All Terrain Forklifs	1	8		Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecMEP Systems	Scissor Lift	6	8		Aerial Lifts	120	63	0.3	Diesel	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.1	0.0
City RecOffsite Demolition / Grading / Utilities	Loader	1	8		Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader	2	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	skid steer	2	8		Skid Steer Loaders	120	65	0.4	Diesel	0.1	2.0	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecOffsite Demolition / Grading / Utilities	Bobcat	2	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Asphalt Paver	1	8		Pavers	175	130	0.4	Diesel	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Vibratory roller	2	8		Rollers	120	80	0.4	Diesel	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Backhoe/ loader	3	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Excavator	1	8		Excavators	175	158	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Bobcat	2	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	All Terrain Forklifs	1	8		Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecSite Improvements	Mobile Concrete Pump	1	8		Pumps	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0
City RecArch Coatings	Air Compressors	1	6		Air Compressors	120	78	0.5	Diesel	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0

Offroad Calculations		Location	Onsite																				
Mitigated																				2020			
										3	4	5	6	7			8						
Phase	Equip	#/day	hrs/day	RT Load	CMOD	HP Bin	HP	LF	Fuel	Pounds per day								Tons p					
										ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10		
City Road																							
City RoadDemolition	Excavator	1	8		Excavators	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	RT Dozer	1	8		Rubber Tired Dozers	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	RT Loader	1	8		Rubber Tired Loaders	250	199	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadDemolition	Skid Steer Loader	1	8		Skid Steer Loaders	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0		
City RoadWater Truck	Water Truck	1	8		Off-Highway Trucks	500	400	0.4	Diesel	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0		
City RoadGrading	RT Dozer	1	8		Rubber Tired Dozers	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0		
City RoadGrading	RT Loader	1	8		Rubber Tired Loaders	120	97	0.4	Diesel	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadGrading	Scrapers	2	8		Scrapers	500	361	0.5	Diesel	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.1	0.1	0.0		
City RoadUtilities	Excavator	1	8		Excavators	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadUtilities	Tractor/Loader/Backhoe	1	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadPaving	Grader	1	8		Graders	175	174	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadPaving	Paver	1	8		Pavers	175	125	0.4	Diesel	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadPaving	Roller	1	8		Rollers	120	80	0.4	Diesel	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadPaving	Skid Steer Loader	1	8		Skid Steer Loaders	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	Bore/Drill Rigs	1	8		Bore/Drill Rigs	250	205	0.5	Diesel	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	Cranes	1	8		Cranes	250	226	0.3	Diesel	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	Off-Highway Trucks	1	8		Off-Highway Trucks	500	400	0.4	Diesel	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0		
City RoadFinishing	Tractor/Loader/Backhoe	1	8		Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0		

Offroad Calculations	Location									6									2021							
Mitigated						9	10	11			3	4	5	6	7			8								
Phase	Equip	er year				Metric tons per year				Gal per year	Pounds per day								Tons per year							
		PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
City Rec																										
City RecMobilization/Demolition	AC Cold Planer	0.0			0.0	0.9	0.0	0.0	0.9	89	0.2	3.3	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecMobilization/Demolition	Loader	0.0			0.0	0.8	0.0	0.0	0.8	81	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecMobilization/Demolition	Backhoe Loader	0.0			0.0	0.4	0.0	0.0	0.4	40	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecDewatering/Shoring	Drill/ Auger rig	0.0			0.0	0.8	0.0	0.0	0.8	81	0.2	4.5	5.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecDewatering/Shoring	*dewater pumps	0.0			0.0	0.6	0.0	0.0	0.6	59	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecDewatering/Shoring	Loader	0.0			0.0	0.6	0.0	0.0	0.6	54	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	Pile Driving Rig	0.0			0.0	16.6	0.0	0.0	16.8	1625	0.5	9.1	10.2	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	*dewater pumps	0.0			0.0	6.1	0.0	0.0	6.1	593	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	Grader	0.0			0.0	5.8	0.0	0.0	5.9	569	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	Excavator	0.0			0.0	9.1	0.0	0.0	9.3	893	0.3	4.9	5.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	Loader	0.0			0.0	11.0	0.0	0.0	11.2	1081	0.3	6.0	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExcavation and Foundation	Backhoe Loader	0.0			0.0	5.4	0.0	0.0	5.5	532	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	*Tower Crane	0.0			0.0	5.6	0.0	0.0	5.7	547	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	*crane low-rise	0.0			0.0	4.5	0.0	0.0	4.5	438	0.0	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	*Concrete Pump	0.0			0.0	13.9	0.0	0.0	14.0	1359	0.1	2.3	3.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	Mobile Concrete Pump	0.0			0.0	15.5	0.0	0.0	15.7	1522	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	All Terrain Forklifs	0.0			0.0	16.7	0.0	0.0	17.0	1639	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	15T Wheeled Hydro Crane	0.0			0.0	13.8	0.0	0.0	14.1	1356	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecStructural Frame	Backhoe Loader	0.0			0.0	7.5	0.0	0.0	7.6	732	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExterior Closure and Roofing	Boom Lifts	0.0			0.0	24.2	0.0	0.0	24.6	2370	0.2	4.0	6.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExterior Closure and Roofing	*Man/ Material Hoist	0.0			0.0	4.3	0.0	0.0	4.3	418	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecExterior Closure and Roofing	All Terrain Forklifs	0.0			0.0	20.1	0.0	0.0	20.4	1967	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecInterior Construction/ Finishes	All Terrain Forklifs	0.0			0.0	8.4	0.0	0.0	8.5	819	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecInterior Construction/ Finishes	Scissor Lift	0.0			0.0	24.2	0.0	0.0	24.6	2370	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecMEP Systems	All Terrain Forklifs	0.0			0.0	2.7	0.0	0.0	2.8	268	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecMEP Systems	Scissor Lift	0.0			0.0	7.9	0.0	0.0	8.0	776	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.1	0.0	0.0			0.0
City RecOffsite Demolition / Grading / Utilities	Loader	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0			0.0
City RecOffsite Demolition / Grading / Utilities	skid steer	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.0	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecOffsite Demolition / Grading / Utilities	Bobcat	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.1	0.0	0.0			0.0
City RecSite Improvements	Asphalt Paver	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecSite Improvements	Vibratory roller	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecSite Improvements	Backhoe/ loader	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.1	0.0	0.0			0.0
City RecSite Improvements	Excavator	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecSite Improvements	Bobcat	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecSite Improvements	All Terrain Forklifs	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecSite Improvements	Mobile Concrete Pump	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RecArch Coatings	Air Compressors	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location									6									2021							
Mitigated						9	10	11			3	4	5	6	7			8								
Phase	Equip	per year				Metric tons per year				Gal per year	Pounds per day								Tons per year							
		PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
City Road																										
City RoadDemolition	Excavator	0.0			0.0	4.7	0.0	0.0	4.7	458	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadDemolition	RT Dozer	0.0			0.0	7.7	0.0	0.0	7.9	758	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadDemolition	RT Loader	0.0			0.0	5.4	0.0	0.0	5.5	530	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadDemolition	Skid Steer Loader	0.0			0.0	1.8	0.0	0.0	1.8	174	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadWater Truck	Water Truck	0.0			0.0	4.6	0.0	0.0	4.7	454	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadGrading	RT Dozer	0.0			0.0	3.1	0.0	0.0	3.1	303	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadGrading	RT Loader	0.0			0.0	1.0	0.0	0.0	1.1	102	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadGrading	Scrapers	0.0			0.0	10.5	0.0	0.0	10.7	1031	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadUtilities	Excavator	0.0			0.0	0.5	0.0	0.0	0.5	46	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadUtilities	Tractor/Loader/Backhoe	0.0			0.0	0.3	0.0	0.0	0.3	27	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadPaving	Grader	0.0			0.0	4.9	0.0	0.0	5.0	479	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadPaving	Paver	0.0			0.0	3.5	0.0	0.0	3.6	346	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadPaving	Roller	0.0			0.0	2.0	0.0	0.0	2.1	201	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadPaving	Skid Steer Loader	0.0			0.0	1.6	0.0	0.0	1.6	157	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadFinishing	Bore/Drill Rigs	0.0			0.0	0.4	0.0	0.0	0.4	38	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadFinishing	Cranes	0.0			0.0	0.2	0.0	0.0	0.3	24	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadFinishing	Off-Highway Trucks	0.0			0.0	0.6	0.0	0.0	0.6	57	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
City RoadFinishing	Tractor/Loader/Backhoe	0.0			0.0	0.1	0.0	0.0	0.1	13	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location					7																		8
Mitigated		9	10	11			3	4	5	6	7			8								9	10	11		
Phase	Equip	Metric tons per year				Gal per year	Pounds per day								Tons per year							Metric tons per year				Gal per year
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec																										
City RecMobilization/Demolition	AC Cold Planer	0.0	0.0	0.0	0.0	0	0.2	3.3	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	Loader	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	Backhoe Loader	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Drill/ Auger rig	0.0	0.0	0.0	0.0	0	0.2	4.5	5.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	*dewater pumps	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Loader	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Pile Driving Rig	0.0	0.0	0.0	0.0	0	0.5	9.1	10.2	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	*dewater pumps	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Grader	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Excavator	0.0	0.0	0.0	0.0	0	0.3	4.9	5.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Loader	0.0	0.0	0.0	0.0	0	0.3	6.0	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Backhoe Loader	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*Tower Crane	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*crane low-rise	0.0	0.0	0.0	0.0	0	0.0	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*Concrete Pump	0.0	0.0	0.0	0.0	0	0.1	2.3	3.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Mobile Concrete Pump	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	All Terrain Forklifs	0.0	0.0	0.0	0.0	0	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	15T Wheeled Hydro Crane	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Backhoe Loader	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	Boom Lifts	0.0	0.0	0.0	0.0	0	0.2	4.0	6.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	*Man/ Material Hoist	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	All Terrain Forklifs	0.0	0.0	0.0	0.0	0	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	All Terrain Forklifs	0.0	0.0	0.0	0.0	0	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	Scissor Lift	0.0	0.0	0.0	0.0	0	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	All Terrain Forklifs	3.0	0.0	0.0	3.1	298	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	Scissor Lift	8.8	0.0	0.0	8.9	862	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Loader	7.2	0.0	0.0	7.3	703	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader	7.1	0.0	0.0	7.2	692	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	skid steer	4.7	0.0	0.0	4.8	461	0.1	2.0	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Bobcat	7.1	0.0	0.0	7.2	692	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Asphalt Paver	3.3	0.0	0.0	3.3	320	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Vibratory roller	3.6	0.0	0.0	3.7	357	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Backhoe/ loader	6.5	0.0	0.0	6.6	639	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Excavator	3.6	0.0	0.0	3.7	357	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Bobcat	4.3	0.0	0.0	4.4	426	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	All Terrain Forklifs	2.4	0.0	0.0	2.5	238	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Mobile Concrete Pump	4.5	0.0	0.0	4.6	443	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	Air Compressors	2.6	0.0	0.0	2.6	250	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations	Location					7					2022													8
Mitigated		9	10	11			3	4	5	6	7			8							9	10	11		
Phase	Equip	Metric tons per year				Gal per year	Pounds per day								Tons per year							Metric tons per year				Gal per year
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Road																										
City RoadDemolition	Excavator	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	RT Dozer	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	RT Loader	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	Skid Steer Loader	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	Water Truck	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	RT Dozer	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	RT Loader	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	Scrapers	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Excavator	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Tractor/Loader/Backhoe	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Grader	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Paver	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Roller	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Skid Steer Loader	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Bore/Drill Rigs	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Cranes	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Off-Highway Trucks	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Tractor/Loader/Backhoe	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations	Location	2023																9						
Mitigated		3	4	5	6	7			8								9	10	11			3	4	5	6	7
Phase	Equip	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day				
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5
City Rec																											
City RecMobilization/Demolition	AC Cold Planer	0.2	3.3	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	3.7	0.1	0.1
City RecMobilization/Demolition	Loader	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1
City RecMobilization/Demolition	Backhoe Loader	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1
City RecDewatering/Shoring	Drill/ Auger rig	0.2	4.5	5.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.5	5.1	0.2	0.2
City RecDewatering/Shoring	*dewater pumps	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2
City RecDewatering/Shoring	Loader	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1
City RecExcavation and Foundation	Pile Driving Rig	0.5	9.1	10.2	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	9.1	10.2	0.3	0.3
City RecExcavation and Foundation	*dewater pumps	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2
City RecExcavation and Foundation	Grader	0.2	3.1	3.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.1	3.5	0.1	0.1
City RecExcavation and Foundation	Excavator	0.3	4.9	5.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	4.9	5.5	0.2	0.2
City RecExcavation and Foundation	Loader	0.3	6.0	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.0	6.7	0.2	0.2
City RecExcavation and Foundation	Backhoe Loader	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1
City RecStructural Frame	*Tower Crane	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1
City RecStructural Frame	*crane low-rise	0.0	0.9	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.9	1.4	0.0	0.0
City RecStructural Frame	*Concrete Pump	0.1	2.3	3.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.3	3.6	0.1	0.1
City RecStructural Frame	Mobile Concrete Pump	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1	0.1
City RecStructural Frame	All Terrain Forklifs	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	5.2	0.2	0.2
City RecStructural Frame	15T Wheeled Hydro Crane	0.1	2.7	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.1	0.1	0.1
City RecStructural Frame	Backhoe Loader	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1
City RecExterior Closure and Roofing	Boom Lifts	0.2	4.0	6.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.0	6.3	0.2	0.2
City RecExterior Closure and Roofing	*Man/ Material Hoist	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0
City RecExterior Closure and Roofing	All Terrain Forklifs	0.2	3.3	5.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	5.2	0.2	0.2
City RecInterior Construction/ Finishes	All Terrain Forklifs	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.6	0.1	0.1
City RecInterior Construction/ Finishes	Scissor Lift	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.8	7.6	0.2	0.2
City RecMEP Systems	All Terrain Forklifs	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.6	0.1	0.1
City RecMEP Systems	Scissor Lift	0.2	4.8	7.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.8	7.6	0.2	0.2
City RecOffsite Demolition / Grading / Utilities	Loader	0.2	3.0	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	3.4	0.1	0.1
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1
City RecOffsite Demolition / Grading / Utilities	skid steer	0.1	2.0	3.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.0	3.1	0.1	0.1
City RecOffsite Demolition / Grading / Utilities	Bobcat	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1
City RecSite Improvements	Asphalt Paver	0.1	2.2	2.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.2	2.5	0.1	0.1
City RecSite Improvements	Vibratory roller	0.1	2.5	3.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	3.9	0.1	0.1
City RecSite Improvements	Backhoe/ loader	0.2	4.4	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.4	7.0	0.2	0.2
City RecSite Improvements	Excavator	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1
City RecSite Improvements	Bobcat	0.2	2.9	4.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	4.7	0.1	0.1
City RecSite Improvements	All Terrain Forklifs	0.1	1.6	2.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.6	0.1	0.1
City RecSite Improvements	Mobile Concrete Pump	0.1	2.5	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	4.1	0.1	0.1
City RecArch Coatings	Air Compressors	0.1	1.1	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.8	0.1	0.1

Offroad Calculations	Location	2023																9						
Mitigated		3	4	5	6	7			8								9	10	11			3	4	5	6	7
Phase	Equip	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day				
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5
City Road																											
City RoadDemolition	Excavator	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1
City RoadDemolition	RT Dozer	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2
City RoadDemolition	RT Loader	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1
City RoadDemolition	Skid Steer Loader	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0
City RoadWater Truck	Water Truck	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2
City RoadGrading	RT Dozer	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2
City RoadGrading	RT Loader	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1	0.1
City RoadGrading	Scrapers	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5	0.5
City RoadUtilities	Excavator	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1
City RoadUtilities	Tractor/Loader/Backhoe	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1
City RoadPaving	Grader	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1
City RoadPaving	Paver	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1	0.1
City RoadPaving	Roller	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1	0.1
City RoadPaving	Skid Steer Loader	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0
City RoadFinishing	Bore/Drill Rigs	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2	0.2
City RoadFinishing	Cranes	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1	0.1
City RoadFinishing	Off-Highway Trucks	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2
City RoadFinishing	Tractor/Loader/Backhoe	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1

Offroad Calculations	Location	2024														10
Mitigated				8								9	10	11		
Phase	Equip	Tons per year										Metric tons per year				Gal per year
		PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Rec																	
City RecMobilization/Demolition	AC Cold Planer			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMobilization/Demolition	Backhoe Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Drill/ Auger rig			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	*dewater pumps			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecDewatering/Shoring	Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Pile Driving Rig			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	*dewater pumps			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Grader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Excavator			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExcavation and Foundation	Backhoe Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*Tower Crane			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*crane low-rise			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	*Concrete Pump			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Mobile Concrete Pump			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	All Terrain Forklifs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	15T Wheeled Hydro Crane			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecStructural Frame	Backhoe Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	Boom Lifts			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	*Man/ Material Hoist			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecExterior Closure and Roofing	All Terrain Forklifs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	All Terrain Forklifs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecInterior Construction/ Finishes	Scissor Lift			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	All Terrain Forklifs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecMEP Systems	Scissor Lift			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Backhoe Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	skid steer			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecOffsite Demolition / Grading / Utilities	Bobcat			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Asphalt Paver			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Vibratory roller			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Backhoe/ loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Excavator			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Bobcat			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	All Terrain Forklifs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecSite Improvements	Mobile Concrete Pump			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RecArch Coatings	Air Compressors			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Offroad Calculations	Location	2024														10
Mitigated				8								9	10	11		
Phase	Equip	Tons per year										Metric tons per year				Gal per year
		PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
City Road																	
City RoadDemolition	Excavator			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	RT Dozer			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	RT Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadDemolition	Skid Steer Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadWater Truck	Water Truck			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	RT Dozer			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	RT Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadGrading	Scrapers			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Excavator			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadUtilities	Tractor/Loader/Backhoe			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Grader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Paver			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Roller			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadPaving	Skid Steer Loader			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Bore/Drill Rigs			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Cranes			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Off-Highway Trucks			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
City RoadFinishing	Tractor/Loader/Backhoe			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Roadway/Parking Lot Coatings **Mitigated**

Emissions based on Calculation Details in CalEEMod Users Guide, Appendi

Phase

Apaint = Apl x P%
Eap = EFap x Aparking

City RoadFinishing

Unmitigated	City RoadFinishing	*description*
VOC Emissions (lbs/day)	6	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	6	
E (annual)	6	
EF -exterior	0.00348	emission factor (lbs per sq. ft.)
ft.)		
New construction (sf)	14,000	
Days of coatings	1	
Construction SF per day	14,000	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**75**	**VOC content (g/L)**
rea. Default is 75% of area is exterior surface and 25% interior		
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	
	180	

Building Coatings **Mitigated**

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 15-16

Eac = Efac x F x Apaint
EFac = Cvoc / 454 (g/lb) x 3.875 (L/GAL) / 180 (sqft)

Unmitigated	City RecArch Coatings	*description*
VOC Emissions (lbs/day)	87	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.9	
Eexterior (day)	65	
Einterior (day)	22	
Eexterior (annual)	1,310	
Einterior (annual)	437	
EF -exterior	0.00356	emission factor (lbs per sq. ft.)
EF - interior	0.00356	emission factor (lbs per sq. ft.)
New construction (sf)	245,300	
Days of coatings	20	
Construction SF per day	12,265	ft2
Fraction exterior	75%	exterior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Fraction interior	25%	interior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Cext	**75**	**Exterior VOC content (g/L)**
Cint	**75**	**Interior VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.87541178	

Mitigated

	2020
	Pounds per day
Phase	**ROG**
City RecArch Coatings	87.3
City RoadFinishing	5.8

Construction by Component
GB Capital

Offroad Calculations	Location	Onsite							2020									
									Pounds per day								Tons per year	
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX
GBCPhase1																		
GBCPhase1Demolition	Concrete/Industrial Saws	1	8	Concrete/Industrial Saws	120	81	0.7	Diesel	0.4	3.3	3.7	0.2	0.2			0.0	0.0	0.0
GBCPhase1Demolition	Excavators	3	8	Excavators	175	158	0.4	Diesel	0.7	7.3	9.9	0.4	0.3			0.0	0.0	0.1
GBCPhase1Demolition	Dozer	2	8	Rubber Tired Dozers	250	247	0.4	Diesel	2.1	22.4	8.2	1.1	1.0			0.0	0.0	0.2
GBCPhase1Site Preparation	Dozer	3	8	Rubber Tired Dozers	250	247	0.4	Diesel	3.2	33.6	12.2	1.6	1.5			0.0	0.0	0.2
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	4	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.8	8.4	9.1	0.5	0.5			0.0	0.0	0.0
GBCPhase1Site Grading	Excavators	2	8	Excavators	175	158	0.4	Diesel	0.5	4.8	6.6	0.2	0.2			0.0	0.0	0.1
GBCPhase1Site Grading	Graders	1	8	Graders	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.1
GBCPhase1Site Grading	Dozers	1	8	Rubber Tired Dozers	250	247	0.4	Diesel	1.1	11.2	4.1	0.5	0.5			0.0	0.0	0.2
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.1
GBCPhase1Site Grading	Scrapers	2	8	Scrapers	500	367	0.5	Diesel	2.0	23.6	15.0	0.9	0.8			0.0	0.0	0.4
GBCPhase1Building Construction	Cranes	1	7	Cranes	250	231	0.3	Diesel	0.4	4.7	1.8	0.2	0.2			0.0	0.0	0.5
GBCPhase1Building Construction	Forklifts	3	8	Forklifts	120	89	0.2	Diesel	0.4	3.9	3.6	0.3	0.3			0.0	0.0	0.4
GBCPhase1Building Construction	Generator Sets	1	8	Generator Sets	120	84	0.7	Diesel	0.4	3.5	3.7	0.2	0.2			0.0	0.0	0.3
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	3	7	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.5	5.5	6.0	0.3	0.3			0.0	0.1	0.5
GBCPhase1Building Construction	Welders	1	8	Welders	50	46	0.5	Diesel	0.3	1.6	1.8	0.1	0.1			0.0	0.0	0.2
GBCPhase1Paving	Pavers	2	8	Pavers	175	130	0.4	Diesel	0.5	5.6	5.7	0.3	0.2			0.0	0.0	0.0
GBCPhase1Paving	Paving Equipment	2	8	Paving Equipment	175	132	0.4	Diesel	0.4	4.2	5.0	0.2	0.2			0.0	0.0	0.0
GBCPhase1Paving	Rollers	2	8	Rollers	120	80	0.4	Diesel	0.4	4.1	3.7	0.3	0.2			0.0	0.0	0.0
GBCPhase1Architectural Coatings	Air compressors	1	6	Air Compressors	120	78	0.5	Diesel	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0
GBCPhase2																		
GBCPhase2Mobilization/Demolition	AC Cold Planer	1	8	Paving Equipment	250	225	0.4	Diesel	0.3	4.5	1.8	0.2	0.1			0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	1	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.3	3.5	2.1	0.1	0.1			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	*dewater pumps	6	24	Pumps	15	5	0.7	Diesel	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Pile Driving Rig	2	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.6	7.1	4.2	0.2	0.2			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	*dewater pumps	6	24	Pumps	15	5	0.7	Diesel	0.9	5.3	4.2	0.3	0.3			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Grader	1	8	Graders	250	187	0.4	Diesel	0.5	6.3	1.8	0.2	0.2			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Excavator	2	8	Excavators	175	158	0.4	Diesel	0.5	4.8	6.6	0.2	0.2			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Loader	2	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.8	8.9	3.3	0.3	0.3			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	*Tower Crane	1	10	Cranes	120	75	0.3	Diesel	0.3	3.0	2.0	0.2	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	*crane low-rise	1	10	Cranes	120	60	0.3	Diesel	0.3	2.4	1.6	0.2	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	*Concrete Pump	1	10	Pumps	120	60	0.7	Diesel	0.4	3.2	3.4	0.2	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.4	3.5	3.8	0.2	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.3	3.5	4.6	0.1	0.1			0.0	0.0	0.0
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	1	8	Cranes	250	231	0.3	Diesel	0.5	5.4	2.1	0.2	0.2			0.0	0.0	0.0
GBCPhase2Structural Frame	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Boom Lifts	5	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.2	5.4	0.1	0.1			0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	4	10	Aerial Lifts	15	10	0.3	Diesel	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.3	3.5	4.6	0.1	0.1			0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.8	6.5	0.1	0.1			0.0	0.0	0.0
GBCPhase2MEP Systems	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2MEP Systems	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	3.8	6.5	0.1	0.1			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.4	4.4	1.6	0.1	0.1			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	2	8	Skid Steer Loaders	120	65	0.4	Diesel	0.2	2.1	2.8	0.1	0.1			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0
GBCPhase2Site Improvements	Asphalt Paver	1	8	Pavers	175	130	0.4	Diesel	0.3	2.8	2.9	0.1	0.1			0.0	0.0	0.0
GBCPhase2Site Improvements	Vibratory roller	2	8	Rollers	120	80	0.4	Diesel	0.4	4.1	3.7	0.3	0.2			0.0	0.0	0.0
GBCPhase2Site Improvements	Backhoe/loader	3	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.6	6.3	6.8	0.4	0.4			0.0	0.0	0.0
GBCPhase2Site Improvements	Excavator	1	8	Excavators	175	158	0.4	Diesel	0.2	2.4	3.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2Site Improvements	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.4	4.2	4.5	0.3	0.2			0.0	0.0	0.0
GBCPhase2Site Improvements	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.7	2.3	0.1	0.1			0.0	0.0	0.0
GBCPhase2Site Improvements	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.4	3.5	3.8	0.2	0.2			0.0	0.0	0.0
GBCPhase2Architectural Coatings	Air Compressors	1	6	Air Compressors	120	78	0.5	Diesel	0.2	1.7	1.8	0.1	0.1			0.0	0.0	0.0

CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4
0.0	0.0	0.0			0.0	5.4	0.0
0.1	0.0	0.0			0.0	13.7	0.0
0.1	0.0	0.0			0.0	14.8	0.0
0.1	0.0	0.0			0.0	11.1	0.0
0.0	0.0	0.0			0.0	5.4	0.0
0.1	0.0	0.0			0.0	16.0	0.0
0.1	0.0	0.0			0.0	10.2	0.0
0.2	0.0	0.0			0.0	13.0	0.0
0.1	0.0	0.0			0.0	9.5	0.0
0.4	0.0	0.0			0.0	46.8	0.0
0.5	0.0	0.0			0.0	42.7	0.0
0.4	0.0	0.0			0.0	39.3	0.0
0.3	0.0	0.0			0.0	54.8	0.0
0.5	0.0	0.0			0.0	69.2	0.0
0.2	0.0	0.0			0.0	18.3	0.0
0.0	0.0	0.0			0.0	0.0

Offroad Calculations	Location			6	2021														7								
Phase	Equip	ns per year		Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day						
		N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
GBCPhase1																															
GBCPhase1Demolition	Concrete/Industrial Saws	0.0	5.4	527	0.4	3.0	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	2.8	3.7	0.2	0.2		
GBCPhase1Demolition	Excavators	0.0	13.9	1340	0.7	6.5	9.9	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	5.4	9.8	0.3	0.2		
GBCPhase1Demolition	Dozer	0.0	15.1	1453	2.1	21.7	8.0	1.1	1.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.7	17.4	7.1	0.8	0.8		
GBCPhase1Site Preparation	Dozer	0.0	11.3	1090	3.1	32.5	12.0	1.6	1.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	2.5	26.1	10.6	1.2	1.1		
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	0.0	5.5	532	0.7	7.6	9.0	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	6.7	8.9	0.4	0.3		
GBCPhase1Site Grading	Excavators	0.0	16.2	1563	0.5	4.3	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.6	6.5	0.2	0.2		
GBCPhase1Site Grading	Graders	0.0	10.3	996	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	5.2	1.7	0.2	0.2		
GBCPhase1Site Grading	Dozers	0.0	13.2	1271	1.0	10.8	4.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	8.7	3.5	0.4	0.4		
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	0.0	9.7	932	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2		
GBCPhase1Site Grading	Scrapers	0.0	47.5	4585	1.9	21.5	14.1	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.6	18.0	12.8	0.7	0.6		
GBCPhase1Building Construction	Cranes	0.0	43.4	4186	0.4	4.2	1.7	0.2	0.2			0.0	0.0	0.4	0.2	0.0	0.0			0.0	39.0	0.0	0.0	39.6	3819	0.3	3.6	1.6	0.2	0.1		
GBCPhase1Building Construction	Forklifts	0.0	39.9	3847	0.4	3.6	3.5	0.3	0.2			0.0	0.0	0.3	0.3	0.0	0.0			0.0	35.8	0.0	0.0	36.4	3510	0.3	3.2	3.5	0.2	0.2		
GBCPhase1Building Construction	Generator Sets	0.0	55.3	5370	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.3	0.3	0.0	0.0			0.0	50.0	0.0	0.0	50.5	4899	0.3	2.9	3.7	0.1	0.1		
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	0.0	70.3	6777	0.5	5.0	5.9	0.3	0.3			0.0	0.0	0.4	0.5	0.0	0.0			0.0	63.2	0.0	0.0	64.1	6186	0.4	4.4	5.9	0.2	0.2		
GBCPhase1Building Construction	Welders	0.0	18.5	1788	0.3	1.5	1.7	0.1	0.1			0.0	0.0	0.1	0.2	0.0	0.0			0.0	16.7	0.0	0.0	16.8	1631	0.3	1.5	1.7	0.1	0.1		
GBCPhase1Paving	Pavers	0.0	0.0	0	0.5	5.1	5.7	0.2	0.2			0.0	0.0	0.1	0.1	0.0	0.0			0.0	8.2	0.0	0.0	8.3	800	0.4	4.2	5.7	0.2	0.2		
GBCPhase1Paving	Paving Equipment	0.0	0.0	0	0.4	3.8	5.0	0.2	0.2			0.0	0.0	0.0	0.1	0.0	0.0			0.0	7.1	0.0	0.0	7.2	691	0.4	3.4	5.0	0.2	0.2		
GBCPhase1Paving	Rollers	0.0	0.0	0	0.4	3.8	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	4.6	0.0	0.0	4.6	446	0.3	3.4	3.7	0.2	0.2		
GBCPhase1Architectural Coatings	Air compressors	0.0	0.0	0	0.2	1.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	2.6	0.0	0.0	2.6	250	0.2	1.4	1.8	0.1	0.1		
GBCPhase2																															
GBCPhase2Mobilization/Demolition	AC Cold Planer	0.0	0.0	0	0.3	3.6	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	1.7	0.1	0.1		
GBCPhase2Mobilization/Demolition	Loader	0.0	0.0	0	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1		
GBCPhase2Mobilization/Demolition	Backhoe Loader	0.0	0.0	0	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1		
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	0.0	0.0	0	0.3	3.0	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.3	2.1	0.1	0.1		
GBCPhase2Dewatering/Shoring	*dewater pumps	0.0	0.0	0	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2		
GBCPhase2Dewatering/Shoring	Loader	0.0	0.0	0	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1		
GBCPhase2Excavation and Foundation	Pile Driving Rig	0.0	0.0	0	0.5	6.1	4.2	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.6	4.1	0.1	0.1		
GBCPhase2Excavation and Foundation	*dewater pumps	0.0	0.0	0	0.8	5.2	4.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.2	4.1	0.2	0.2		
GBCPhase2Excavation and Foundation	Grader	0.0	0.0	0	0.5	5.9	1.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	5.2	1.7	0.2	0.2		
GBCPhase2Excavation and Foundation	Excavator	0.0	0.0	0	0.5	4.3	6.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.6	6.5	0.2	0.2		
GBCPhase2Excavation and Foundation	Loader	0.0	0.0	0	0.7	7.8	3.2	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	6.1	3.1	0.2	0.2		
GBCPhase2Excavation and Foundation	Backhoe Loader	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2		
GBCPhase2Structural Frame	*Tower Crane	0.0	0.0	0	0.3	2.7	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	1.9	0.2	0.2		
GBCPhase2Structural Frame	*crane low-rise	0.0	0.0	0	0.2	2.2	1.5	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	1.5	0.1	0.1		
GBCPhase2Structural Frame	*Concrete Pump	0.0	0.0	0	0.3	2.9	3.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	3.3	0.1	0.1		
GBCPhase2Structural Frame	Mobile Concrete Pump	0.0	0.0	0	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.0	3.7	0.2	0.2		
GBCPhase2Structural Frame	All Terrain Forklifs	0.0	0.0	0	0.2	3.2	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	4.6	0.1	0.1		
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	0.0	0.0	0	0.4	4.8	2.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.2	1.9	0.2	0.2		
GBCPhase2Structural Frame	Backhoe Loader	0.0	0.0	0	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2	0.1	0.1		
GBCPhase2Exterior Closure and Roofing	Boom Lifts	0.0	0.0	0	0.2	3.0	5.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.8	5.4	0.1	0.0		
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0		
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	0.0	0.0	0	0.2	3.2	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	4.6	0.1	0.1		
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	0.0	0.0	0	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.0		
GBCPhase2Interior Construction/ Finishes	Scissor Lift	0.0	0.0	0	0.2	3.6	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	6.5	0.1	0.1		
GBCPhase2MEP Systems	All Terrain Forklifs	0.0	0.0	0	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.0		
GBCPhase2MEP Systems	Scissor Lift	0.0	0.0	0	0.2	3.6	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.3	6.5	0.1	0.1		
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	0.0	0.0	0	0.3	3.9	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1		
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2		
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	0.0	0.0	0	0.2	2.0	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.8	2.8	0.1	0.1		
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2		
GBCPhase2Site Improvements	Asphalt Paver	0.0	0.0	0	0.2	2.6	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	2.9	0.1	0.1		
GBCPhase2Site Improvements	Vibratory roller	0.0	0.0	0	0.4	3.8	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	3.7	0.2	0.2		
GBCPhase2Site Improvements	Backhoe/loader	0.0	0.0	0	0.6	5.7	6.8	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	5.0	6.7	0.3	0.2		
GBCPhase2Site Improvements	Excavator	0.0	0.0	0	0.2	2.2	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	3.3	0.1	0.1		
GBCPhase2Site Improvements	Bobcat	0.0	0.0	0	0.4	3.8	4.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	4.5	0.2	0.2		
GBCPhase2Site Improvements	All Terrain Forklifs	0.0	0.0	0	0.1	1.6	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.0		
GBCPhase2Site Improvements	Mobile Concrete Pump	0.0	0.0	0	0.4	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.0	3.7	0.2	0.2		
GBCPhase2Architectural Coatings	Air Compressors	0.0	0.0	0	0.2	1.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	1.8	0.1	0.1		

Offroad Calculations	Location	2022													8	2023													
Phase	Equip	Tons per year									Metric tons per year				Gal per year	Pounds per day									Tons per year						Metric to	
		SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4
GBCPhase1																																	
GBCPhase1Demolition	Concrete/Industrial Saws	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Demolition	Excavators	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	4.7	9.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Demolition	Dozer	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.4	14.1	6.1	0.6	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Preparation	Dozer	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	2.0	21.1	9.2	1.0	0.9			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	6.1	8.9	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Grading	Excavators	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.1	6.5	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Grading	Graders	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.6	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Grading	Dozers	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Site Grading	Scrapers	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.6	16.6	12.3	0.7	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Building Construction	Cranes	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.3	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Building Construction	Forklifts	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.9	3.5	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Building Construction	Generator Sets	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.0	5.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Building Construction	Welders	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	1.4	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Paving	Pavers	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.7	5.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Paving	Paving Equipment	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.2	5.0	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Paving	Rollers	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase1Architectural Coatings	Air compressors	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.3	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2																																	
GBCPhase2Mobilization/Demolition	AC Cold Planer	0.0	0.0	0.0	0.0	0.0	0.0			0.0	3.0	0.0	0.0	3.1	296	0.2	2.7	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	2.8	0.0	0.0	2.8	270	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Backhoe Loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.4	0.0	0.0	1.4	133	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	0.0	0.0	0.0	0.0	0.0	0.0			0.0	2.5	0.0	0.0	2.5	245	0.2	2.0	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	*dewater pumps	0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.8	0.0	0.0	1.8	178	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.7	0.0	0.0	1.7	162	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Pile Driving Rig	0.0	0.0	0.1	0.1	0.0	0.0			0.0	50.0	0.0	0.0	50.8	4895	0.4	4.1	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	*dewater pumps	0.0	0.0	0.2	0.1	0.0	0.0			0.0	18.2	0.0	0.0	18.4	1779	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Grader	0.0	0.0	0.2	0.1	0.0	0.0			0.0	17.4	0.0	0.0	17.7	1704	0.4	4.6	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Excavator	0.0	0.0	0.1	0.2	0.0	0.0			0.0	27.4	0.0	0.0	27.8	2679	0.4	3.1	6.5	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Loader	0.0	0.0	0.2	0.1	0.0	0.0			0.0	33.1	0.0	0.0	33.6	3245	0.5	5.3	3.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Backhoe Loader	0.0	0.0	0.1	0.1	0.0	0.0			0.0	16.3	0.0	0.0	16.6	1599	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	*Tower Crane	0.0	0.0	0.2	0.2	0.0	0.0			0.0	16.7	0.0	0.0	16.9	1631	0.3	2.3	1.9	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	*crane low-rise	0.0	0.0	0.2	0.1	0.0	0.0			0.0	13.3	0.0	0.0	13.5	1305	0.2	1.9	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	*Concrete Pump	0.0	0.0	0.2	0.3	0.0	0.0			0.0	41.4	0.0	0.0	41.7	4053	0.3	2.5	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	Mobile Concrete Pump	0.0	0.0	0.2	0.3	0.0	0.0			0.0	46.3	0.0	0.0	46.8	4539	0.3	2.8	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	All Terrain Forklifs	0.0	0.0	0.2	0.4	0.0	0.0			0.0	49.9	0.0	0.0	50.7	4888	0.2	2.8	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	0.0	0.0	0.3	0.2	0.0	0.0			0.0	41.3	0.0	0.0	41.9	4045	0.3	3.8	1.8	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Structural Frame	Backhoe Loader	0.0	0.0	0.1	0.2	0.0	0.0			0.0	22.3	0.0	0.0	22.7	2186	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Boom Lifts	0.0	0.0	0.0	0.0	0.0	0.0			0.0	6.2	0.0	0.0	6.3	611	0.2	2.7	5.4	0.0	0.0			0.0	0.0	0.2	0.5	0.0	0.0			0.0	66.4	0.0
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	0.0	0.0	0.0	0.0	0.0	0.0			0.0	1.1	0.0	0.0	1.1	108	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.1	0.1	0.0	0.0			0.0	11.7	0.0
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0	0.0			0.0	5.2	0.0	0.0	5.3	507	0.2	2.8	4.6	0.1	0.1			0.0	0.0	0.3	0.4	0.0	0.0			0.0	55.1	0.0
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Scissor Lift	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.2	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2MEP Systems	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2MEP Systems	Scissor Lift	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	3.2	6.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Asphalt Paver	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Vibratory roller	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.2	3.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Backhoe/loader	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.6	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Excavator	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Bobcat	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	4.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Site Improvements	Mobile Concrete Pump	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.8	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
GBCPhase2Architectural Coatings	Air Compressors	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.3	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0

Offroad Calculations	Location			9	2024																	10										
Phase	Equip	ns per year		Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per	Pounds per day							
		N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
GBCPhase1																																
GBCPhase1Demolition	Concrete/Industrial Saws	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	3.6	0.1	0.1			0.0
GBCPhase1Demolition	Excavators	0.0	0.0	0	0.5	4.2	9.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.7	9.8	0.2	0.2			0.0
GBCPhase1Demolition	Dozer	0.0	0.0	0	1.4	14.1	6.2	0.6	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.3	13.1	5.9	0.6	0.5			0.0
GBCPhase1Site Preparation	Dozer	0.0	0.0	0	2.1	21.1	9.3	1.0	0.9			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.9	19.7	8.9	0.9	0.8			0.0
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	0.0	0.0	0	0.6	5.8	8.9	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	5.3	8.9	0.2	0.2			0.0
GBCPhase1Site Grading	Excavators	0.0	0.0	0	0.4	2.8	6.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	6.6	0.1	0.1			0.0
GBCPhase1Site Grading	Graders	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	1.6	0.1	0.1			0.0
GBCPhase1Site Grading	Dozers	0.0	0.0	0	0.7	7.0	3.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	6.6	3.0	0.3	0.3			0.0
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	4.4	0.1	0.1			0.0
GBCPhase1Site Grading	Scrapers	0.0	0.0	0	1.5	15.5	12.0	0.6	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.3	12.8	10.8	0.5	0.5			0.0
GBCPhase1Building Construction	Cranes	0.0	0.0	0	0.3	3.0	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.8	1.5	0.1	0.1			0.0
GBCPhase1Building Construction	Forklifts	0.0	0.0	0	0.3	2.7	3.4	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	3.4	0.1	0.1			0.0
GBCPhase1Building Construction	Generator Sets	0.0	0.0	0	0.3	2.5	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1			0.0
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	0.0	0.0	0	0.4	3.8	5.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.5	5.8	0.1	0.1			0.0
GBCPhase1Building Construction	Welders	0.0	0.0	0	0.2	1.4	1.7	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.3	1.7	0.0	0.0			0.0
GBCPhase1Paving	Pavers	0.0	0.0	0	0.4	3.4	5.7	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	5.7	0.1	0.1			0.0
GBCPhase1Paving	Paving Equipment	0.0	0.0	0	0.3	3.0	5.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	5.0	0.1	0.1			0.0
GBCPhase1Paving	Rollers	0.0	0.0	0	0.3	3.0	3.7	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.8	3.6	0.1	0.1			0.0
GBCPhase1Architectural Coatings	Air compressors	0.0	0.0	0	0.2	1.2	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.1	1.8	0.1	0.1			0.0
GBCPhase2																																
GBCPhase2Mobilization/Demolition	AC Cold Planer	0.0	0.0	0	0.2	1.8	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	1.6	0.1	0.1			0.0
GBCPhase2Mobilization/Demolition	Loader	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	1.5	0.1	0.1			0.0
GBCPhase2Mobilization/Demolition	Backhoe Loader	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.2	0.1	0.0			0.0
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	0.0	0.0	0	0.2	1.9	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	2.0	0.1	0.1			0.0
GBCPhase2Dewatering/Shoring	*dewater pumps	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.0	4.1	0.2	0.2			0.0
GBCPhase2Dewatering/Shoring	Loader	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	1.5	0.1	0.1			0.0
GBCPhase2Excavation and Foundation	Pile Driving Rig	0.0	0.0	0	0.4	3.8	4.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	3.7	4.1	0.1	0.1			0.0
GBCPhase2Excavation and Foundation	*dewater pumps	0.0	0.0	0	0.8	5.1	4.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	5.0	4.1	0.2	0.2			0.0
GBCPhase2Excavation and Foundation	Grader	0.0	0.0	0	0.4	4.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	1.6	0.1	0.1			0.0
GBCPhase2Excavation and Foundation	Excavator	0.0	0.0	0	0.4	2.8	6.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.5	6.6	0.1	0.1			0.0
GBCPhase2Excavation and Foundation	Loader	0.0	0.0	0	0.5	4.7	3.0	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.7	3.0	0.1	0.1			0.0
GBCPhase2Excavation and Foundation	Backhoe Loader	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	4.4	0.1	0.1			0.0
GBCPhase2Structural Frame	*Tower Crane	0.0	0.0	0	0.2	2.2	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	1.8	0.1	0.1			0.0
GBCPhase2Structural Frame	*crane low-rise	0.0	0.0	0	0.2	1.8	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	1.5	0.1	0.1			0.0
GBCPhase2Structural Frame	*Concrete Pump	0.0	0.0	0	0.3	2.3	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.2	3.3	0.1	0.1			0.0
GBCPhase2Structural Frame	Mobile Concrete Pump	0.0	0.0	0	0.3	2.6	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1			0.0
GBCPhase2Structural Frame	All Terrain Forklifs	0.0	0.0	0	0.2	2.7	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.6	4.6	0.1	0.1			0.0
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	0.0	0.0	0	0.3	3.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.1	1.7	0.1	0.1			0.0
GBCPhase2Structural Frame	Backhoe Loader	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.2	0.1	0.0			0.0
GBCPhase2Exterior Closure and Roofing	Boom Lifts	0.0	67.4	6500	0.2	2.6	5.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.6	5.4	0.0	0.0			0.0
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	0.0	11.9	1148	0.0	0.8	0.8	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.8	0.8	0.0	0.0			0.0
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	0.0	55.9	5395	0.2	2.7	4.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.6	4.6	0.1	0.1			0.0
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.1	0.2	0.0	0.0			0.0	25.3	0.0	0.0	25.6	2474	0.1	1.3	2.3	0.0	0.0			0.0
GBCPhase2Interior Construction/ Finishes	Scissor Lift	0.0	0.0	0	0.2	3.1	6.5	0.1	0.0			0.0	0.0	0.3	0.5	0.0	0.0			0.0	73.0	0.0	0.0	74.2	7154	0.2	3.1	6.5	0.1	0.0			0.0
GBCPhase2MEP Systems	All Terrain Forklifs	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.1	0.0	0.0			0.0	10.0	0.0	0.0	10.2	983	0.1	1.3	2.3	0.0	0.0			0.0
GBCPhase2MEP Systems	Scissor Lift	0.0	0.0	0	0.2	3.1	6.5	0.1	0.0			0.0	0.0	0.1	0.2	0.0	0.0			0.0	29.0	0.0	0.0	29.5	2844	0.2	3.1	6.5	0.1	0.0			0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	1.5	0.1	0.1			0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	4.4	0.1	0.1			0.0
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	0.0	0.0	0	0.1	1.6	2.8	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.6	2.7	0.0	0.0			0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	4.4	0.1	0.1			0.0
GBCPhase2Site Improvements	Asphalt Paver	0.0	0.0	0	0.2	1.7	2.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	2.9	0.1	0.1			0.0
GBCPhase2Site Improvements	Vibratory roller	0.0	0.0	0	0.3	3.0	3.7	0.2	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.8	3.6	0.1	0.1			0.0
GBCPhase2Site Improvements	Backhoe/loader	0.0	0.0	0	0.4	4.3	6.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.0	6.7	0.2	0.1			0.0
GBCPhase2Site Improvements	Excavator	0.0	0.0	0	0.2	1.4	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.2	3.3	0.1	0.1			0.0
GBCPhase2Site Improvements	Bobcat	0.0	0.0	0	0.3	2.9	4.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.7	4.4	0.1	0.1			0.0
GBCPhase2Site Improvements	All Terrain Forklifs	0.0	0.0	0	0.1	1.4	2.3	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.3	2.3	0.0	0.0			0.0
GBCPhase2Site Improvements	Mobile Concrete Pump	0.0	0.0	0	0.3	2.6	3.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.4	3.7	0.1	0.1			0.0
GBCPhase2Architectural Coatings	Air Compressors	0.0	0.0	0	0.2	1.2	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.1	1.8	0.1	0.1			0.0

Offroad Calculations	Location	2025												11
Phase	Equip	Tons per year								Metric tons per year				Gal per year
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
GBCPhase1														
GBCPhase1Demolition	Concrete/Industrial Saws	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Demolition	Excavators	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Demolition	Dozer	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Preparation	Dozer	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Excavators	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Graders	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Dozers	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Scrapers	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Cranes	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Forklifts	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Generator Sets	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Welders	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	Pavers	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	Paving Equipment	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	Rollers	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Architectural Coatings	Air compressors	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2														
GBCPhase2Mobilization/Demolition	AC Cold Planer	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Mobilization/Demolition	Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Mobilization/Demolition	Backhoe Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	*dewater pumps	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Pile Driving Rig	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	*dewater pumps	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Grader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Excavator	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Backhoe Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	*Tower Crane	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	*crane low-rise	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	*Concrete Pump	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	Mobile Concrete Pump	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	Backhoe Loader	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	Boom Lifts	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Construction/ Finishes	Scissor Lift	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
GBCPhase2MEP Systems	All Terrain Forklifs	0.0	0.0	0.1	0.0	0.0			0.0	7.2	0.0	0.0	7.3	700
GBCPhase2MEP Systems	Scissor Lift	0.0	0.1	0.2	0.0	0.0			0.0	20.7	0.0	0.0	21.0	2026
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	0.0	0.1	0.1	0.0	0.0			0.0	21.3	0.0	0.0	21.6	2082
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	0.0	0.1	0.2	0.0	0.0			0.0	21.0	0.0	0.0	21.3	2058
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	0.0	0.1	0.1	0.0	0.0			0.0	13.9	0.0	0.0	14.2	1366
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	0.0	0.1	0.2	0.0	0.0			0.0	21.0	0.0	0.0	21.3	2058
GBCPhase2Site Improvements	Asphalt Paver	0.0	0.0	0.1	0.0	0.0			0.0	10.0	0.0	0.0	10.2	980
GBCPhase2Site Improvements	Vibratory roller	0.0	0.1	0.1	0.0	0.0			0.0	11.2	0.0	0.0	11.3	1092
GBCPhase2Site Improvements	Backhoe/loader	0.0	0.1	0.2	0.0	0.0			0.0	20.1	0.0	0.0	20.4	1965
GBCPhase2Site Improvements	Excavator	0.0	0.0	0.1	0.0	0.0			0.0	11.2	0.0	0.0	11.4	1095
GBCPhase2Site Improvements	Bobcat	0.0	0.1	0.1	0.0	0.0			0.0	13.4	0.0	0.0	13.6	1310
GBCPhase2Site Improvements	All Terrain Forklifs	0.0	0.0	0.1	0.0	0.0			0.0	7.5	0.0	0.0	7.6	730
GBCPhase2Site Improvements	Mobile Concrete Pump	0.0	0.1	0.1	0.0	0.0			0.0	13.8	0.0	0.0	14.0	1356
GBCPhase2Architectural Coatings	Air Compressors	0.0	0.0	0.0	0.0	0.0			0.0	2.6	0.0	0.0	2.6	250

Labor Calculations	Offsite						2020														
Code	Vehicles/ day	Single Trips/day	Miles/day	Vehicle	Vehicle Type	Fuel	Pounds per day								Tons per year								Metric tons per ye		
							ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
GBCPhase1																									
GBCPhase1Demolition	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
GBCPhase1Site Preparation	9	18	194	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
GBCPhase1Site Grading	10	20	216	Employee	LDA-LDT	Gas	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
GBCPhase1Building Construction	96	191	2063	Employee	LDA-LDT	Gas	0.5	0.4	4.7	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	123.0	0.0	0.0
GBCPhase1Paving	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	16	31	335	Employee	LDA-LDT	Gas	0.1	0.1	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2																									
GBCPhase2Mobilization/Demolition	10	20	216	Employee	LDA-LDT	Gas	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	15	30	324	Employee	LDA-LDT	Gas	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	15	30	324	Employee	LDA-LDT	Gas	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	45	90	972	Employee	LDA-LDT	Gas	0.2	0.2	2.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	30	60	648	Employee	LDA-LDT	Gas	0.1	0.1	1.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	55	110	1188	Employee	LDA-LDT	Gas	0.3	0.2	2.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	20	40	432	Employee	LDA-LDT	Gas	0.1	0.1	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	63	125	1350	Employee	LDA-LDT	Gas	0.3	0.3	3.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	58	115	1242	Employee	LDA-LDT	Gas	0.3	0.2	2.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	8	15	162	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	30	60	648	Employee	LDA-LDT	Gas	0.1	0.1	1.5	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	29	58	626	Employee	LDA-LDT	Gas	0.1	0.1	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations		6	2021																				7						
Code	ar	Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per	Pounds per day					
	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D
GBCPhase1																													
GBCPhase1Demolition	1.0	113	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0
GBCPhase1Site Preparation	0.6	68	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0
GBCPhase1Site Grading	2.3	265	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1
GBCPhase1Building Construction	124.2	14008	0.4	0.4	4.4	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	109.1	0.0	0.0	110.1	12421	0.4	0.3	4.1	0.0	0.0	0.5
GBCPhase1Paving	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	110	0.0	0.0	0.3	0.0	0.0	0.0
GBCPhase1Architectural Coatings	0.0	0	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	228	0.1	0.1	0.7	0.0	0.0	0.1
GBCPhase2																													
GBCPhase2Mobilization/Demolition	0.0	0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1
GBCPhase2Dewatering/Shoring	0.0	0	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.6	0.0	0.0	0.1
GBCPhase2Excavation and Foundation	0.0	0	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.6	0.0	0.0	0.1
GBCPhase2Structural Frame	0.0	0	0.2	0.2	2.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	1.9	0.0	0.0	0.2
GBCPhase2Exterior Closure and Roofing	0.0	0	0.1	0.1	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.3	0.0	0.0	0.2
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	0.0	0	0.2	0.2	2.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.3	0.0	0.0	0.3
GBCPhase2Interior Construction/ Finishes	0.0	0	0.1	0.1	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.9	0.0	0.0	0.1
GBCPhase2MEP Systems	0.0	0	0.3	0.2	2.9	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	0.2	2.7	0.0	0.0	0.3
GBCPhase2Phase Completion Work	0.0	0	0.3	0.2	2.6	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.4	0.0	0.0	0.3
GBCPhase2Offsite Demolition / Grading / Utilities	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0
GBCPhase2Site Improvements	0.0	0	0.1	0.1	1.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.3	0.0	0.0	0.2
GBCPhase2Architectural Coatings	0.0	0	0.1	0.1	1.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.2	0.0	0.0	0.2

Labor Calculations	2022														8	2023													
Code	Tons per year										Metric tons per year					Pounds per day								Tons per yea				
	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5
GBCPhase1																													
GBCPhase1Demolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	0.3	3.8	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Paving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2																													
GBCPhase2Mobilization/Demolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	71	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	64	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	5.7	643	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	46.3	0.0	0.0	46.7	5271	0.2	0.1	1.8	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	3.2	364	0.1	0.1	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.5	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations								9	2024															
Code	ır			Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
GBCPhase1																												
GBCPhase1Demolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	0.3	3.6	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Paving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2																												
GBCPhase2Mobilization/Demolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.0	0.6	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.1	1.7	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	0.0	0.0	0.0	33.1	0.0	0.0	33.4	3772	0.1	0.1	1.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	0.0	0.0	0.0	26.5	0.0	0.0	26.7	3018	0.2	0.1	2.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	9.5
GBCPhase2Interior Construction/ Finishes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	19.7	0.0	0.0	19.9
GBCPhase2MEP Systems	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.3	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	24.5	0.0	0.0	24.7
GBCPhase2Phase Completion Work	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.2	2.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	1.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations	10	2025																				11
Code	Gal per year	Pounds per day								Tons per year								Metric tons per year				
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year
GBCPhase1																						
GBCPhase1Demolition	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Preparation	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	0	0.3	0.2	3.4	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Architectural Coatings	0	0.1	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2																						
GBCPhase2Mobilization/Demolition	0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	0	0.1	0.1	1.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	0	0.1	0.1	1.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	1078	0.2	0.1	1.9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Construction/ Finishes	2245	0.1	0.0	0.7	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2MEP Systems	2789	0.2	0.2	2.2	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	17.0	0.0	0.0	17.1	1935
GBCPhase2Phase Completion Work	0	0.2	0.1	2.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6	0.0	0.0	14.7	1666
GBCPhase2Offsite Demolition / Grading / Utilities	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.4	380
GBCPhase2Site Improvements	0	0.1	0.1	1.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5	0.0	0.0	8.6	968
GBCPhase2Architectural Coatings	0	0.1	0.1	1.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	3.4	382

Earthmoving/Paving Calculations	Location	Onsite			2020																
Code	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day								Tons per year								Metric tons per yea
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
GBCPhase1																							
GBCPhase1Demolition		375	8		0.0					6.1	3.3		0.0					0.1	0.0				
GBCPhase1Site Preparation		0	8		0.0					6.0	3.3		0.0					0.0	0.0				
GBCPhase1Site Grading	0.29	0	8		0.0					6.3	3.3		0.0					0.1	0.1				
GBCPhase1Building Construction		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase1Paving		0	0	22,338	1.3					0.0	0.0		0.0					0.0	0.0				
GBCPhase1Architectural Coatings		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2																							
GBCPhase2Mobilization/Demolition		63	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Dewatering/Shoring		42	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Excavation and Foundation	0.26	250	8	11,480	0.7					6.3	3.3		0.0					0.0	0.0				
GBCPhase2Structural Frame		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Exterior Closure and Roofing		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Interior Rough-In (Elev./MEP/Framing)		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Interior Construction/ Finishes		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2MEP Systems		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Phase Completion Work		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Offsite Demolition / Grading / Utilities		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Site Improvements		0	0		0.0					0.0	0.0		0.0					0.0	0.0				
GBCPhase2Architectural Coatings		0	0		0.0					0.0	0.0		0.0					0.0	0.0				

Earthmoving/Paving Calculations		6	2021														7						
Code	ar	Gal per	Pounds per day								Tons per year								Metric tons per year				Gal per	Pounds per day					
	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	year	ROG	NOX	CO	PM10	PM2.5	PM10 D
GBCPhase1																													
GBCPhase1Demolition			0.0					6.1	3.3		0.0					0.0	0.0							0.0					6.1
GBCPhase1Site Preparation			0.0					6.0	3.3		0.0					0.0	0.0							0.0					6.0
GBCPhase1Site Grading			0.0					6.3	3.3		0.0					0.0	0.0							0.0					6.3
GBCPhase1Building Construction			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase1Paving			1.3					0.0	0.0		0.0					0.0	0.0							1.3					0.0
GBCPhase1Architectural Coatings			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2																													
GBCPhase2Mobilization/Demolition			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Dewatering/Shoring			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Excavation and Foundation			0.7					6.3	3.3		0.0					0.0	0.0							0.7					6.3
GBCPhase2Structural Frame			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Exterior Closure and Roofing			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Interior Construction/ Finishes			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2MEP Systems			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Phase Completion Work			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Offsite Demolition / Grading / Utilities			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Site Improvements			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0
GBCPhase2Architectural Coatings			0.0					0.0	0.0		0.0					0.0	0.0							0.0					0.0

Earthmoving/Paving Calculations	2022													8	2023												
Code	Tons per year										Metric tons per year				Gal per year	Pounds per day								Tons per year				
	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5
GBCPhase1																												
GBCPhase1Demolition	3.3		0.0					0.0	0.0							0.0					6.1	3.3		0.0				
GBCPhase1Site Preparation	3.3		0.0					0.0	0.0							0.0					6.0	3.3		0.0				
GBCPhase1Site Grading	3.3		0.0					0.0	0.0							0.0					6.3	3.3		0.0				
GBCPhase1Building Construction	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase1Paving	0.0		0.0					0.0	0.0							1.3					0.0	0.0		0.0				
GBCPhase1Architectural Coatings	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2																												
GBCPhase2Mobilization/Demolition	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Dewatering/Shoring	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Excavation and Foundation	3.3		0.0					0.2	0.1							0.7					6.3	3.3		0.0				
GBCPhase2Structural Frame	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Exterior Closure and Roofing	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Interior Construction/ Finishes	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2MEP Systems	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Phase Completion Work	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Offsite Demolition / Grading / Utilities	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Site Improvements	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				
GBCPhase2Architectural Coatings	0.0		0.0					0.0	0.0							0.0					0.0	0.0		0.0				

Earthmoving/Paving Calculations								9	2024															
Code	Metric tons per year							Gal per year	Pounds per day								Tons per year							Metric tons per year			
	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
GBCPhase1																												
GBCPhase1Demolition	0.0	0.0							0.0					6.1	3.3		0.0					0.0	0.0					
GBCPhase1Site Preparation	0.0	0.0							0.0					6.0	3.3		0.0					0.0	0.0					
GBCPhase1Site Grading	0.0	0.0							0.0					6.3	3.3		0.0					0.0	0.0					
GBCPhase1Building Construction	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase1Paving	0.0	0.0							1.3					0.0	0.0		0.0					0.0	0.0					
GBCPhase1Architectural Coatings	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2																												
GBCPhase2Mobilization/Demolition	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Dewatering/Shoring	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Excavation and Foundation	0.0	0.0							0.7					6.3	3.3		0.0					0.0	0.0					
GBCPhase2Structural Frame	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Exterior Closure and Roofing	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Interior Construction/ Finishes	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2MEP Systems	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Phase Completion Work	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Offsite Demolition / Grading / Utilities	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Site Improvements	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					
GBCPhase2Architectural Coatings	0.0	0.0							0.0					0.0	0.0		0.0					0.0	0.0					

Earthmoving/Paving Calculations	10	2025																	11
Code	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
GBCPhase1																						
GBCPhase1Demolition		0.0					6.1	3.3		0.0					0.0	0.0						
GBCPhase1Site Preparation		0.0					6.0	3.3		0.0					0.0	0.0						
GBCPhase1Site Grading		0.0					6.3	3.3		0.0					0.0	0.0						
GBCPhase1Building Construction		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase1Paving		1.3					0.0	0.0		0.0					0.0	0.0						
GBCPhase1Architectural Coatings		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2																						
GBCPhase2Mobilization/Demolition		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Dewatering/Shoring		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Excavation and Foundation		0.7					6.3	3.3		0.0					0.0	0.0						
GBCPhase2Structural Frame		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Exterior Closure and Roofing		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Interior Rough-In (Elev./MEP/Framing)		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Interior Construction/ Finishes		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2MEP Systems		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Phase Completion Work		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Offsite Demolition / Grading / Utilities		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Site Improvements		0.0					0.0	0.0		0.0					0.0	0.0						
GBCPhase2Architectural Coatings		0.0					0.0	0.0		0.0					0.0	0.0						

Onroad Calculations											2020													
			Yearly			Daily					13	14	15	16	17	18	19	20						
											2	3	4	5	7	6	8	9						
											Pounds per day								Tons per year					
Code	Trip Type	Total Trucks	Single Trips/day Yearly	Miles/day Yearly	Vehicles/day Daily	Single Trips/day Daily	Miles/day Daily	Vehicle	Vehicle Type	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D
GBCPhase1																								
GBCPhase1Demolition	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	Vendor	18870	102	745	51	102	745	General Truck	T7	Diesel	0.9	14.3	3.1	0.2	0.2	0.4	0.1	0.0	0.1	1.4	0.3	0.0	0.0	0.0
GBCPhase1Paving	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Demolition	Material	469	47	235	24	48	240	General Truck	T7	Diesel	0.3	4.9	1.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Paving	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2																								
GBCPhase2Mobilization/Demolition	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Vendor	300	10	50	5	10	50	General Truck	T7	Diesel	0.1	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	Vendor	2340	29	208	15	30	219	General Truck	T7	Diesel	0.3	4.2	0.9	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Vendor	360	4	27	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Vendor	180	3	25	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Vendor	90	1	8	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	Vendor	60	1	8	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	Vendor	90	4	30	3	6	44	General Truck	T7	Diesel	0.1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Vendor		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	Vendor	100	4	30	3	6	44	General Truck	T7	Diesel	0.1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Material	45	9	180	5	10	200	General Truck	T7	Diesel	0.2	3.5	0.7	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Material	18	6	120	3	6	120	General Truck	T7	Diesel	0.1	2.1	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Material	937.5	31	625	16	32	640	General Truck	T7	Diesel	0.8	11.2	2.1	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Material	30	1	16	1	2	40	General Truck	T7	Diesel	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	Material		0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onroad Calculations								6	2021																7			
				21	22	23			13	14	15	16	17	18	19	20								21	22	23				
				10	11	12			2	3	4	5	7	6	8	9								10	11	12				
				Metric tons per year					Pounds per day											Tons per year							Metric tons per year						
Code	Trip Type	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO
GBCPhase1																															
GBCPhase1Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Site Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Site Grading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Building Construction	Vendor	0.0	0.0	290.2	0.0	0.0	303.9	28426	0.8	12.5	2.9	0.2	0.2	0.4	0.1	0.0	0.1	1.1	0.3	0.0	0.0	0.0	0.0	0.0	260.8	0.0	0.0	273.0	25539	0.4	9.7	2.2
GBCPhase1Paving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.2	0.0
GBCPhase1Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Demolition	Material	0.0	0.0	9.7	0.0	0.0	10.1	948	0.3	4.3	1.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	3.4	0.9
GBCPhase1Site Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Site Grading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Building Construction	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Paving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2																															
GBCPhase2Mobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.2
GBCPhase2Structural Frame	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	3.7	0.8	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.8	0.6
GBCPhase2Exterior Closure and Roofing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4	0.1
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4	0.1
GBCPhase2Interior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0
GBCPhase2MEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0
GBCPhase2Phase Completion Work	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6	0.1
GBCPhase2Offsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Site Improvements	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6	0.1
GBCPhase2Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	3.0	0.6	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.3	0.4
GBCPhase2Dewatering/Shoring	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.8	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	0.2
GBCPhase2Excavation and Foundation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.6	9.7	1.9	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.3	7.2	1.3
GBCPhase2Structural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2MEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1
GBCPhase2Site Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0

Onroad Calculations		2022																8	2023											
		16	17	18	19	20									21	22	23		13	14	15	16	17	18	19	20				
		5	7	6	8	9									10	11	12		2	3	4	5	7	6	8	9				
Code	Trip Type	Pounds per day					Tons per year								Metric tons per year				Gal per year	Pounds per day								Tons per year				
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5
GBCPhase1																																
GBCPhase1Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	Vendor	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.2	7.7	1.9	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Paving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Demolition	Material	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.8	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Site Grading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Building Construction	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Paving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase1Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2																																
GBCPhase2Mobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.0	0.0	6.2	580	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	Vendor	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	65.5	0.0	0.0	68.6	6416	0.0	2.3	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	85	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Material	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	3.5	324	0.0	1.7	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Material	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.4	130	0.0	1.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Material	0.1	0.1	0.3	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	69.0	0.0	0.0	72.2	6754	0.1	5.6	1.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Structural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2MEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Phase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Site Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GBCPhase2Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onroad Calculations									9					2024													10		
					21	22	23			13	14	15	16	17	18	19	20								21	22	23			
					10	11	12			2	3	4	5	7	6	8	9								10	11	12			
					Metric tons per year					Pounds per day									Tons per year							Metric tons per year					
Code	Trip Type	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX
GBCPhase1																																
GBCPhase1Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Site Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Site Grading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Building Construction	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	7.7	1.9	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	7.6
GBCPhase1Paving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.1
GBCPhase1Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Demolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.8	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	2.7
GBCPhase1Site Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Site Grading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Building Construction	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Paving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase1Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2																																
GBCPhase2Mobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Dewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Excavation and Foundation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.6
GBCPhase2Structural Frame	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	2.3	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	2.2
GBCPhase2Exterior Closure and Roofing	Vendor	0.0	0.0	0.0	8.9	0.0	0.0	9.3	874	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Vendor	0.0	0.0	0.0	3.6	0.0	0.0	3.8	351	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.4	127	0.0	0.3
GBCPhase2Interior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.5	235	0.0	0.1
GBCPhase2MEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.0	92	0.0	0.1
GBCPhase2Phase Completion Work	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4
GBCPhase2Offsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Site Improvements	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4
GBCPhase2Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Mobilization/Demolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.7	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.7
GBCPhase2Dewatering/Shoring	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	1.0
GBCPhase2Excavation and Foundation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	5.5	1.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	5.5
GBCPhase2Structural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2MEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Phase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3
GBCPhase2Site Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
GBCPhase2Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0

Onroad Calculations		2025																	11
		15	*16*	*17*	*18*	*19*	*20*								*21*	*22*	*23*		
		4	*5*	*7*	*6*	*8*	*9*								*10*	*11*	*12*		
		Pounds per day						Tons per year							Metric tons per year				
Code	Trip Type	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year
GBCPhase1																				
GBCPhase1Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Preparation	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Vendor	1.9	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Demolition	Material	0.8	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Preparation	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Site Grading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Building Construction	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Paving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2																				
GBCPhase2Mobilization/Demolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Vendor	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	Vendor	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	Vendor	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Vendor	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Construction/ Finishes	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2MEP Systems	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.7	65
GBCPhase2Phase Completion Work	Vendor	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	2.5	232
GBCPhase2Offsite Demolition / Grading / Utilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Site Improvements	Vendor	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.8	258
GBCPhase2Architectural Coatings	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Mobilization/Demolition	Material	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Dewatering/Shoring	Material	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Excavation and Foundation	Material	1.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Structural Frame	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Exterior Closure and Roofing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Interior Construction/ Finishes	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2MEP Systems	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Phase Completion Work	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Offsite Demolition / Grading / Utilities	Material	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	2.2	203
GBCPhase2Site Improvements	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
GBCPhase2Architectural Coatings	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Demolition	Onsite	**2020**

Code	**Structures**	**tons/day**	**Pounds per day**							
			ROG	**NOX**	**CO**	**PM10**	**PM2.5**	**PM10 D**	**PM2.5 D**	**SO2**
GBCPhase1										
GBCPhase1Demolition	**Roadways**	145						3.2	0.5	
GBCPhase2										
GBCPhase2Mobilization/Demolition		1,980						43.1	6.5	
GBCPhase2Offsite Demolition / Grading / Utilities		1,350						29.4	4.4	

Roadway/Parking Lot Coatings

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 17

Phase

GBCPhase1Architectural Coatings

Apaint = Apl x P%

Eap = EFap x Aparking

Unmitigated	GBCPhase1Architectural Coatings	*description*
VOC Emissions (lbs/day)	4	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	4	
E (annual)	87	
EF -exterior lbs per sq. ft.)	0.00695	emission factor (lbs per sq. ft.)
New construction (sf)	104,840	
Days of coatings	20	
Construction SF per day	5,242	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**150**	**VOC content (g/L)**
of surface area. Default is 75% of area is exterior surface and 25% interior		
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	
	180	

Building Coatings

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 15-16

Eac = Efac x F x Apaint

EFac = Cvoc / 454 (g/lb) x 3.875 (L/GAL) / 180 (sqft)

Unmitigated	GBCPhase1Architectural Coatings	GBCPhase2Architectural Coatings	*description*
VOC Emissions (lbs/day)	125	479	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	1.3	4.8	
Eexterior (day)	94	359	
Einterior (day)	31	120	
Eexterior (annual)	1,877	7,184	
Einterior (annual)	626	2,395	
EF -exterior	0.00695	0.00695	emission factor (lbs per sq. ft.)
EF - interior	0.00695	0.00695	emission factor (lbs per sq. ft.)
New construction (sf)	179,912	688,776	
Days of coatings	20	20	
Construction SF per day	8,996	34,439	ft2
Fraction exterior	75%	75%	exterior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Fraction interior	25%	25%	interior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Cext	**150**	**150**	**Exterior VOC content (g/L)**
Cint	**150**	**150**	**Interior VOC content (g/L)**
; value.			
scaling factor for A - surface painting	2	2	
g/lb	453.59236	453.59236	
liters per gallon	3.785	3.785	

Phase	Pounds per day ROG
GBCPhase1Architectural Coatings	129.5
GBCPhase2Architectural Coatings	479.0

Electricty Emissions			2020				6	2021		
Phase	Total Electricity Demand (MWh)	Total Electricity Demand per day (MWh)	Metric tons per year				kWh per year	Metric tons per year		
			CO2	CH4	N2O	CO2e		CO2	CH4	N2O
GBCPhase1										
GBCPhase1Demolition	0.45	0.02	0.11	0.00	0.00	0.11	455	0.00	0.00	0.00
GBCPhase1Site Preparation	0.23	0.02	0.06	0.00	0.00	0.06	227	0.00	0.00	0.00
GBCPhase1Site Grading	0.80	0.02	0.19	0.00	0.00	0.19	795	0.00	0.00	0.00
GBCPhase1Building Construction	8.41	0.02	1.07	0.00	0.00	1.07	4409	0.98	0.00	0.00
GBCPhase1Paving	0.45	0.02	0.00	0.00	0.00	0.00	0	0.11	0.00	0.00
GBCPhase1Architectural Coatings	0.45	0.02	0.00	0.00	0.00	0.00	0	0.11	0.00	0.00
GBCPhase2										
GBCPhase2Mobilization/Demolition	0.23	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Dewatering/Shoring	0.14	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Excavation and Foundation	1.36	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Structural Frame	3.73	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Exterior Closure and Roofing	4.48	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	2.43	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Interior Construction/ Finishes	3.77	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2MEP Systems	2.55	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Phase Completion Work	1.00	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Offsite Demolition / Grading / Utilities	1.75	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Site Improvements	1.11	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00
GBCPhase2Architectural Coatings	0.45	0.02	0.00	0.00	0.00	0.00	0	0.00	0.00	0.00

Electricty Emissions				7			2022		8	
					Metric tons per year					
Phase	Total Electricity Demand (MWh)	Total Electricity Demand per day (MWh)	CO2e	kWh per year	CO2	CH4	N2O	CO2e	kWh per year	CO2
GBCPhase1										
GBCPhase1Demolition	0.45	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase1Site Preparation	0.23	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase1Site Grading	0.80	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase1Building Construction	8.41	0.02	0.98	4023	0.00	0.00	0.00	0.00	0	0.00
GBCPhase1Paving	0.45	0.02	0.11	455	0.00	0.00	0.00	0.00	0	0.00
GBCPhase1Architectural Coatings	0.45	0.02	0.11	455	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2										
GBCPhase2Mobilization/Demolition	0.23	0.02	0.00	0	0.06	0.00	0.00	0.06	227	0.00
GBCPhase2Dewatering/Shoring	0.14	0.02	0.00	0	0.03	0.00	0.00	0.03	136	0.00
GBCPhase2Excavation and Foundation	1.36	0.02	0.00	0	0.33	0.00	0.00	0.33	1364	0.00
GBCPhase2Structural Frame	3.73	0.02	0.00	0	0.91	0.00	0.00	0.91	3727	0.00
GBCPhase2Exterior Closure and Roofing	4.48	0.02	0.00	0	0.09	0.00	0.00	0.09	386	1.00
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	2.43	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.44
GBCPhase2Interior Construction/ Finishes	3.77	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2MEP Systems	2.55	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2Phase Completion Work	1.00	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2Offsite Demolition / Grading / Utilities	1.75	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2Site Improvements	1.11	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00
GBCPhase2Architectural Coatings	0.45	0.02	0.00	0	0.00	0.00	0.00	0.00	0	0.00

Electricty Emissions			2023			9	2024			
Phase	Total Electricity Demand (MWh)	Total Electricity Demand per day (MWh)	Metric tons per year			kWh per year	Metric tons per year			
			CH4	N2O	CO2e		CO2	CH4	N2O	CO2e
GBCPhase1										
GBCPhase1Demolition	0.45	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase1Site Preparation	0.23	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase1Site Grading	0.80	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase1Building Construction	8.41	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase1Paving	0.45	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase1Architectural Coatings	0.45	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2										
GBCPhase2Mobilization/Demolition	0.23	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Dewatering/Shoring	0.14	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Excavation and Foundation	1.36	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Structural Frame	3.73	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Exterior Closure and Roofing	4.48	0.02	0.00	0.00	1.00	4114	0.00	0.00	0.00	0.00
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	2.43	0.02	0.00	0.00	0.44	1795	0.16	0.00	0.00	0.16
GBCPhase2Interior Construction/ Finishes	3.77	0.02	0.00	0.00	0.00	0	0.92	0.00	0.00	0.92
GBCPhase2MEP Systems	2.55	0.02	0.00	0.00	0.00	0	0.36	0.00	0.00	0.36
GBCPhase2Phase Completion Work	1.00	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Offsite Demolition / Grading / Utilities	1.75	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Site Improvements	1.11	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00
GBCPhase2Architectural Coatings	0.45	0.02	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00

Electricty Emissions			10	2025				11
				Metric tons per year				
Phase	Total Electricity Demand (MWh)	Total Electricity Demand per day (MWh)	kWh per year	CO2	CH4	N2O	CO2e	kWh per year
GBCPhase1								
GBCPhase1Demolition	0.45	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase1Site Preparation	0.23	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase1Site Grading	0.80	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase1Building Construction	8.41	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase1Paving	0.45	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase1Architectural Coatings	0.45	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2								
GBCPhase2Mobilization/Demolition	0.23	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2Dewatering/Shoring	0.14	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2Excavation and Foundation	1.36	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2Structural Frame	3.73	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2Exterior Closure and Roofing	4.48	0.02	0	0.00	0.00	0.00	0.00	0
GBCPhase2Interior Rough-In (Elev./MEP/Framing)	2.43	0.02	659	0.00	0.00	0.00	0.00	0
GBCPhase2Interior Construction/ Finishes	3.77	0.02	3773	0.00	0.00	0.00	0.00	0
GBCPhase2MEP Systems	2.55	0.02	1500	0.26	0.00	0.00	0.26	1068
GBCPhase2Phase Completion Work	1.00	0.02	0	0.24	0.00	0.00	0.24	1000
GBCPhase2Offsite Demolition / Grading / Utilities	1.75	0.02	0	0.43	0.00	0.00	0.43	1750
GBCPhase2Site Improvements	1.11	0.02	0	0.27	0.00	0.00	0.27	1114
GBCPhase2Architectural Coatings	0.45	0.02	0	0.11	0.00	0.00	0.11	455

Marine Sources

Phase	Equipment	Pounds per day								Tons per year						
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D
GBCPhase1Pier and Dock Pilings	Crane Barge	1.7	11.7	9.3	0.4	0.4			0.0	0.1	0.4	0.3	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Tug Drop-off	2.1	15.2	14.5	0.3	0.3			0.1	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Tug Removal	2.1	15.2	14.5	0.3	0.3			0.1	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Drop-off	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Removal	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Movements	0.3	2.6	2.0	0.1	0.1			0.0	0.0	0.1	0.1	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Material Barge	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Material Barge Drop-off	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Material Barge Removal	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Drop-off	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Removal	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Push Boat Movements	0.3	2.6	2.0	0.1	0.1			0.0	0.0	0.1	0.1	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Jet Pump	3.0	22.9	17.9	0.7	0.7			0.1	0.1	0.8	0.6	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Skiff Arrival	0.9	0.6	49.6	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Skiff Departure	0.9	0.6	49.6	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Pier and Dock Pilings	Skiff Dock Movements	1.6	1.1	85.6	1.4	1.3			0.0	0.1	0.0	2.8	0.0	0.0		
GBCPhase1Place Floating Docks	Shoreside Crane	0.4	4.5	3.1	0.2	0.2			0.2	0.0	0.1	0.1	0.0	0.0		
GBCPhase1Place Floating Docks	Skiff Arrival	0.9	0.6	49.6	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Place Floating Docks	Skiff Departure	0.9	0.6	49.6	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Place Floating Docks	Skiff Dock Movements	1.6	1.1	85.6	1.4	1.3			0.0	0.1	0.0	2.8	0.0	0.0		
GBCPhase1Setting Moorings	Barge	1.7	11.7	9.3	0.4	0.4			0.0	0.0	0.3	0.2	0.0	0.0		
GBCPhase1Setting Moorings	Tug Drop-off	2.1	15.2	14.5	0.3	0.3			0.1	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Setting Moorings	Tug Removal	2.1	15.2	14.5	0.3	0.3			0.1	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Setting Moorings	Push Boat Drop-off	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Setting Moorings	Push Boat Removal	0.2	1.5	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		
GBCPhase1Setting Moorings	Push Boat Movements	0.3	2.6	2.0	0.1	0.1			0.0	0.0	0.1	0.1	0.0	0.0		

Marine Sources							6
Phase	Equipment	Metric tons per year					Gal per year
		SO2	CO2	CH4	N2O	CO2e	
GBCPhase1Pier and Dock Pilings	Crane Barge	0.0	29.7	0.0	0.0	30.1	2904
GBCPhase1Pier and Dock Pilings	Tug Drop-off	0.0	0.8	0.0	0.0	0.8	79
GBCPhase1Pier and Dock Pilings	Tug Removal	0.0	0.8	0.0	0.0	0.8	79
GBCPhase1Pier and Dock Pilings	Push Boat Drop-off	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Pier and Dock Pilings	Push Boat Removal	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Pier and Dock Pilings	Push Boat Movements	0.0	7.3	0.0	0.0	7.4	717
GBCPhase1Pier and Dock Pilings	Material Barge	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Pier and Dock Pilings	Material Barge Drop-off	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Pier and Dock Pilings	Material Barge Removal	0.0	0.0	0.0	0.0	0.0	0
GBCPhase1Pier and Dock Pilings	Push Boat Drop-off	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Pier and Dock Pilings	Push Boat Removal	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Pier and Dock Pilings	Push Boat Movements	0.0	7.3	0.0	0.0	7.4	717
GBCPhase1Pier and Dock Pilings	Jet Pump	0.0	63.8	0.0	0.0	64.7	6248
GBCPhase1Pier and Dock Pilings	Skiff Arrival	0.0	0.0	0.0	0.0	0.0	4
GBCPhase1Pier and Dock Pilings	Skiff Departure	0.0	0.0	0.0	0.0	0.0	4
GBCPhase1Pier and Dock Pilings	Skiff Dock Movements	0.0	4.9	0.0	0.0	5.5	480
GBCPhase1Place Floating Docks	Shoreside Crane	0.0	36.6	0.0	0.0	37.2	3586
GBCPhase1Place Floating Docks	Skiff Arrival	0.0	0.0	0.0	0.0	0.0	4
GBCPhase1Place Floating Docks	Skiff Departure	0.0	0.0	0.0	0.0	0.0	4
GBCPhase1Place Floating Docks	Skiff Dock Movements	0.0	4.9	0.0	0.0	5.5	480
GBCPhase1Setting Moorings	Barge	0.0	19.8	0.0	0.0	20.0	1936
GBCPhase1Setting Moorings	Tug Drop-off	0.0	0.8	0.0	0.0	0.8	79
GBCPhase1Setting Moorings	Tug Removal	0.0	0.8	0.0	0.0	0.8	79
GBCPhase1Setting Moorings	Push Boat Drop-off	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Setting Moorings	Push Boat Removal	0.0	0.1	0.0	0.0	0.1	6
GBCPhase1Setting Moorings	Push Boat Movements	0.0	7.3	0.0	0.0	7.4	717

Offroad Calculations Location Onsite

Mitigated

									2020											
									3	4	5	6	7		8					9	10
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	Pounds per day							Tons per year						Metric to
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4
GBCPhase1																										
GBCPhase1Demolition	Concrete/Industrial Saws	1	8	Concrete/Industrial Saws	120	81	0.7	Diesel	0.1	2.4	3.9	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	5.4	0.0
GBCPhase1Demolition	Excavators	3	8	Excavators	175	158	0.4	Diesel	0.4	7.4	8.3	0.3	0.3		0.0	0.0	0.1	0.1	0.0	0.0		0.0	13.7	0.0
GBCPhase1Demolition	Dozer	2	8	Rubber Tired Dozers	250	247	0.4	Diesel	0.4	8.0	9.0	0.3	0.3		0.0	0.0	0.1	0.1	0.0	0.0		0.0	14.8	0.0
GBCPhase1Site Preparation	Dozer	3	8	Rubber Tired Dozers	250	247	0.4	Diesel	0.6	12.0	13.4	0.5	0.5		0.0	0.0	0.1	0.1	0.0	0.0		0.0	11.1	0.0
GBCPhase1Site Preparation	Tractor/Loader/Backhoe	4	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.3	5.9	9.3	0.3	0.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	5.4	0.0
GBCPhase1Site Grading	Excavators	2	8	Excavators	175	158	0.4	Diesel	0.3	4.9	5.5	0.2	0.2		0.0	0.0	0.1	0.1	0.0	0.0		0.0	16.0	0.0
GBCPhase1Site Grading	Graders	1	8	Graders	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1		0.0	0.0	0.1	0.1	0.0	0.0		0.0	10.2	0.0
GBCPhase1Site Grading	Dozers	1	8	Rubber Tired Dozers	250	247	0.4	Diesel	0.2	4.0	4.5	0.2	0.2		0.0	0.0	0.1	0.1	0.0	0.0		0.0	13.0	0.0
GBCPhase1Site Grading	Tractors/Loaders/Backhoes	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1		0.0	0.0	0.1	0.1	0.0	0.0		0.0	9.5	0.0
GBCPhase1Site Grading	Scrapers	2	8	Scrapers	500	367	0.5	Diesel	0.7	14.5	16.2	0.5	0.5		0.0	0.0	0.3	0.3	0.0	0.0		0.0	46.8	0.0
GBCPhase1Building Construction	Cranes	1	7	Cranes	250	231	0.3	Diesel	0.1	2.4	2.7	0.1	0.1		0.0	0.0	0.2	0.3	0.0	0.0		0.0	42.7	0.0
GBCPhase1Building Construction	Forklifts	3	8	Forklifts	120	89	0.2	Diesel	0.1	2.2	3.5	0.1	0.1		0.0	0.0	0.2	0.3	0.0	0.0		0.0	39.3	0.0
GBCPhase1Building Construction	Generator Sets	1	8	Generator Sets	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1		0.0	0.0	0.2	0.4	0.0	0.0		0.0	54.8	0.0
GBCPhase1Building Construction	Tractors/Loaders/Backhoes	3	7	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	3.8	6.1	0.2	0.2		0.0	0.0	0.4	0.6	0.0	0.0		0.0	69.2	0.0
GBCPhase1Building Construction	Welders	1	8	Welders	50	46	0.5	Diesel	0.0	1.0	1.4	0.1	0.1		0.0	0.0	0.1	0.1	0.0	0.0		0.0	18.3	0.0
GBCPhase1Paving	Pavers	2	8	Pavers	175	130	0.4	Diesel	0.2	4.4	5.0	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase1Paving	Paving Equipment	2	8	Paving Equipment	175	132	0.4	Diesel	0.2	3.8	4.3	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase1Paving	Rollers	2	8	Rollers	120	80	0.4	Diesel	0.1	2.5	3.9	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase1Architectural Coatings	Air compressors	1	6	Air Compressors	120	78	0.5	Diesel	0.1	1.1	1.8	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2																										
GBCPhase2Mobilization/Demolition	AC Cold Planer	1	8	Paving Equipment	250	225	0.4	Diesel	0.2	3.3	3.7	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Mobilization/Demolition	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Drill/ Auger rig	1	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.2	4.5	5.1	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	*dewater pumps	6	24	Pumps	15	5	0.7	Diesel	0.9	5.3	4.2	0.3	0.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Dewatering/Shoring	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Pile Driving Rig	2	8	Bore/Drill Rigs	250	221	0.5	Diesel	0.5	9.1	10.2	0.3	0.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	*dewater pumps	6	24	Pumps	15	5	0.7	Diesel	0.9	5.3	4.2	0.3	0.3		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Grader	1	8	Graders	250	187	0.4	Diesel	0.2	3.1	3.5	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Excavator	2	8	Excavators	175	158	0.4	Diesel	0.3	4.9	5.5	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Loader	2	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.3	6.0	6.7	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Excavation and Foundation	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	*Tower Crane	1	10	Cranes	120	75	0.3	Diesel	0.1	1.1	1.8	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	*crane low-rise	1	10	Cranes	120	60	0.3	Diesel	0.0	0.9	1.4	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	*Concrete Pump	1	10	Pumps	120	60	0.7	Diesel	0.1	2.3	3.6	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.2	3.3	5.2	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	15T Wheeled Hydro Crane	1	8	Cranes	250	231	0.3	Diesel	0.1	2.7	3.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Structural Frame	Backhoe Loader	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	Boom Lifts	5	8	Aerial Lifts	120	63	0.3	Diesel	0.2	4.0	6.3	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	*Man/ Material Hoist	4	10	Aerial Lifts	15	10	0.3	Diesel	0.0	0.8	0.8	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Exterior Closure and Roofing	All Terrain Forklifs	2	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.2	3.3	5.2	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Interior Construction/ Finishes	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	4.8	7.6	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2MEP Systems	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2MEP Systems	Scissor Lift	6	8	Aerial Lifts	120	63	0.3	Diesel	0.2	4.8	7.6	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Loader	1	8	Rubber Tired Loaders	250	203	0.4	Diesel	0.2	3.0	3.4	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Backhoe Loader	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	skid steer	2	8	Skid Steer Loaders	120	65	0.4	Diesel	0.1	2.0	3.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Offsite Demolition / Grading / Utilities	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Asphalt Paver	1	8	Pavers	175	130	0.4	Diesel	0.1	2.2	2.5	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Vibratory roller	2	8	Rollers	120	80	0.4	Diesel	0.1	2.5	3.9	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Backhoe/loader	3	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	4.4	7.0	0.2	0.2		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Excavator	1	8	Excavators	175	158	0.4	Diesel	0.1	2.5	2.8	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Bobcat	2	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.9	4.7	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	All Terrain Forklifs	1	8	Rough Terrain Forklifts	120	100	0.4	Diesel	0.1	1.6	2.6	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Site Improvements	Mobile Concrete Pump	1	8	Pumps	120	84	0.7	Diesel	0.1	2.5	4.1	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
GBCPhase2Architectural Coatings	Air Compressors	1	6	Air Compressors	120	78	0.5	Diesel	0.1	1.1	1.8	0.1	0.1		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages	**Phase**	
Mitigated		GBCPhase1Architectural Coatings
Apaint = Apl x P%		
Eap = EFap x Aparking		
Unmitigated	GBCPhase1Architectural Coatings	*description*
VOC Emissions (lbs/day)	2	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.0	
E (day)	2	
E (annual)	44	
EF -exterior	0.00348	emission factor (lbs per sq. ft.)
New construction (sf)	104,840	
Days of coatings	20	
Construction SF per day	5,242	ft2
Percent of parking lot area that is painted.	6%	exterior fraction of surface area. Default is 6%
C	**75**	**VOC content (g/L)**
scaling factor for A - surface painting	2	
g/lb	453.59236	
liters per gallon	3.785	

Emissions based on Calculation Details in CalEEMod Users Guide, Appendix A, pages 15-16

Mitigated

Eac = Efac x F x Apaint

EFac = Cvoc / 454 (g/lb) x 3.875 (L/GAL) / 180 (sqft)

Unmitigated	GBCPhase1Architectural Coatings	GBCPhase2Architectural Coatings	*description*
VOC Emissions (lbs/day)	63	239	pounds of VOC per day; unmitigated
VOC Emissions (ton/year)	0.6	2.4	
Eexterior (day)	47	180	
Einterior (day)	16	60	
Eexterior (annual)	938	3,592	
Einterior (annual)	313	1,197	
EF -exterior	0.00348	0.00348	emission factor (lbs per sq. ft.)
EF - interior	0.00348	0.00348	emission factor (lbs per sq. ft.)
New construction (sf)	179,912	688,776	
Days of coatings	20	20	
Construction SF per day	8,996	34,439	ft2
Fraction exterior	75%	75%	exterior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Fraction interior	25%	25%	interior fraction of surface area. Default is 75% of area is exterior surface and 25% interior
Cext	**75**	**75**	**Exterior VOC content (g/L)**
Cint	**75**	**75**	**Interior VOC content (g/L)**
scaling factor for A - surface painting	2	2	
g/lb	453.59236	453.59236	
liters per gallon	3.785	3.785	

Mitigated	2020
	Pounds per day
Phase	ROG
GBCPhase1Architectural Coatings	64.7
GBCPhase2Architectural Coatings	239.5

Construction by Component
Pasha Rail and Roadways

Offroad Calculations	Location	Onsite																							
																									2020
											3	4	5	6	7			8							
											Pounds per day								Tons per year							
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Pasha																									
PashaDemolition	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaDemolition	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.1	0.1	0.0	0.0			0.0
PashaDemolition	RT Loader	1	8	Rubber Tired Loaders	250	199	0.4	Diesel	0.4	4.3	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaDemolition	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaWater Truck	Water Truck	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.7	6.3	3.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaGrading	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	1.0	10.0	7.8	0.5	0.4			0.0	0.0	0.1	0.1	0.0	0.0			0.0
PashaGrading	RT Loader	1	8	Rubber Tired Loaders	120	97	0.4	Diesel	0.3	2.9	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaGrading	Scrapers	2	8	Scrapers	500	361	0.5	Diesel	2.0	23.2	14.7	0.9	0.8			0.0	0.0	0.2	0.1	0.0	0.0			0.0
PashaUtilities	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.3	2.5	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaUtilities	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Grader	1	8	Graders	175	174	0.4	Diesel	0.7	6.9	4.5	0.4	0.4			0.0	0.0	0.1	0.0	0.0	0.0			0.0
PashaPaving	Paver	1	8	Pavers	175	125	0.4	Diesel	0.3	2.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Roller	1	8	Rollers	120	80	0.4	Diesel	0.2	2.1	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Bore/Drill Rigs	1	8	Bore/Drill Rigs	250	205	0.5	Diesel	0.3	3.3	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Cranes	1	8	Cranes	250	226	0.3	Diesel	0.4	5.2	2.1	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Off-Highway Truck	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.7	6.3	3.8	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.2	2.1	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaTrack Install	Forklift	1	8	Forklifts	120	89	0.2	Diesel	0.1	1.3	1.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaTrack Install	Air Compressor	1	8	Air Compressors	50	48	0.5	Diesel	0.4	1.8	2.1	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location					6								2021											7			
		9	10	11			3	4	5	6	7		8								9	10	11			3	4	5
Phase	Equip	Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year			
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO
Pasha																												
PashaDemolition	Excavator	4.7	0.0	0.0	4.7	458	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	3.4
PashaDemolition	RT Dozer	7.7	0.0	0.0	7.9	758	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	8.5	6.9
PashaDemolition	RT Loader	5.4	0.0	0.0	5.5	530	0.3	3.8	1.6	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.0	1.5
PashaDemolition	Skid Steer Loader	1.8	0.0	0.0	1.8	174	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.4
PashaWater Truck	Water Truck	7.5	0.0	0.0	7.7	738	0.6	5.3	3.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	3.4
PashaGrading	RT Dozer	7.7	0.0	0.0	7.9	758	0.9	9.0	7.2	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	8.5	6.9
PashaGrading	RT Loader	2.6	0.0	0.0	2.7	256	0.3	2.6	2.4	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	2.4
PashaGrading	Scrapers	26.3	0.0	0.0	26.7	2577	1.8	21.2	13.8	0.8	0.8			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.6	17.7	12.6
PashaUtilities	Excavator	0.9	0.0	0.0	0.9	92	0.2	2.2	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	3.4
PashaUtilities	Tractor/Loader/Backhoe	0.5	0.0	0.0	0.6	53	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2
PashaPaving	Grader	5.4	0.0	0.0	5.5	533	0.6	6.1	4.5	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.6	5.2	4.4
PashaPaving	Paver	3.9	0.0	0.0	4.0	385	0.2	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.0	2.7
PashaPaving	Roller	2.3	0.0	0.0	2.3	223	0.2	1.9	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	1.8
PashaPaving	Skid Steer Loader	1.8	0.0	0.0	1.8	174	0.1	1.0	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.4
PashaFinishing	Bore/Drill Rigs	0.8	0.0	0.0	0.8	75	0.2	2.8	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	1.9
PashaFinishing	Cranes	0.5	0.0	0.0	0.5	48	0.4	4.7	1.9	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.4	4.1	1.8
PashaFinishing	Off-Highway Truck	1.2	0.0	0.0	1.2	114	0.6	5.3	3.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	3.4
PashaFinishing	Tractor/Loader/Backhoe	0.3	0.0	0.0	0.3	27	0.2	1.9	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.2
PashaTrack Install	Forklift	0.7	0.0	0.0	0.7	66	0.1	1.2	1.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.1	1.2
PashaTrack Install	Air Compressor	1.0	0.0	0.0	1.1	103	0.4	1.7	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	1.7	2.0

Offroad Calculations	Location	2022																8	2023											
		6	7			8								9	10	11			3	4	5	6	7			8				
Phase	Equip	Pounds per day					Tons per year							Metric tons per year				Gal per year	Pounds per day											
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
Pasha																														
PashaDemolition	Excavator	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	3.4	0.1	0.1			0.0	0.0	0.0	0.0
PashaDemolition	RT Dozer	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	7.8	6.6	0.4	0.3			0.0	0.0	0.0	0.0
PashaDemolition	RT Loader	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.6	1.5	0.1	0.1			0.0	0.0	0.0	0.0
PashaDemolition	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0
PashaWater Truck	Water Truck	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaGrading	RT Dozer	0.4	0.4			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.8	7.8	6.6	0.4	0.3			0.0	0.0	0.0	0.0
PashaGrading	RT Loader	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.2	2.4	0.1	0.1			0.0	0.0	0.0	0.0
PashaGrading	Scrapers	0.7	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.6	16.4	12.1	0.6	0.6			0.0	0.0	0.0	0.0
PashaUtilities	Excavator	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	3.4	0.1	0.1			0.0	0.0	0.0	0.0
PashaUtilities	Tractor/Loader/Backhoe	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Grader	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.4	4.3	0.2	0.2			0.0	0.0	0.0	0.0
PashaPaving	Paver	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	2.7	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Roller	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.6	1.8	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0
PashaFinishing	Bore/Drill Rigs	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.9	1.9	0.1	0.1			0.0	0.0	0.0	0.0
PashaFinishing	Cranes	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.7	1.8	0.2	0.1			0.0	0.0	0.0	0.0
PashaFinishing	Off-Highway Truck	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.6	3.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaFinishing	Tractor/Loader/Backhoe	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.5	2.2	0.1	0.1			0.0	0.0	0.0	0.0
PashaTrack Install	Forklift	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.0	1.2	0.1	0.1			0.0	0.0	0.0	0.0
PashaTrack Install	Air Compressor	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	1.6	2.0	0.1	0.1			0.0	0.0	0.0	0.0

Offroad Calculations	Location										9									2024											
							9	10	11			3	4	5	6	7			8									9	10	11		
Phase	Equip	Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Pasha																															
PashaDemolition	Excavator	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	RT Dozer	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	RT Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	2.3	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Water Truck	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.3	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	RT Dozer	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	7.2	6.1	0.3	0.3			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	RT Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	Scrapers	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	1.5	15.2	11.8	0.6	0.6			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaUtilities	Excavator	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.4	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaUtilities	Tractor/Loader/Backhoe	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Grader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	4.0	4.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Paver	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.7	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Roller	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Bore/Drill Rigs	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	1.8	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Cranes	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	3.4	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Off-Highway Truck	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.5	3.3	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Tractor/Loader/Backhoe	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Forklift	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	0.9	1.1	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Air Compressor	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	1.6	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location	10	2025																		11
			3	4	5	6	7		8								9	10	11		
Phase	Equip	Gal per year	Pounds per day							Tons per year								Metric tons per year				Gal per year
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Pasha																						
PashaDemolition	Excavator	0	0.2	1.3	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	RT Dozer	0	0.7	6.0	5.3	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	RT Loader	0	0.2	1.8	1.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	Skid Steer Loader	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaWater Truck	Water Truck	0	0.5	2.9	3.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	RT Dozer	0	0.7	6.0	5.3	0.3	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	RT Loader	0	0.2	1.8	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	Scrapers	0	1.3	12.6	10.6	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Excavator	0	0.2	1.3	3.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Tractor/Loader/Backhoe	0	0.1	1.3	2.2	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Grader	0	0.4	3.5	4.3	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Paver	0	0.2	1.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Roller	0	0.1	1.4	1.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Skid Steer Loader	0	0.1	0.8	1.4	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Bore/Drill Rigs	0	0.2	1.7	1.9	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Cranes	0	0.3	3.1	1.7	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Off-Highway Truck	0	0.5	2.9	3.2	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Tractor/Loader/Backhoe	0	0.1	1.3	2.2	0.1	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Forklift	0	0.1	0.8	1.1	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Air Compressor	0	0.3	1.5	2.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Earthmoving/Paving Calculations	Location	Onsite										
Code	Strip (acres/day)	Borrow/Excavate (cy/day)	Dozing hr/day	Paving (sf/day)	Pounds per day							
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
PashaDemolition		345	8		0.0					6.1	3.3	
PashaWater Truck		0	0		0.0					0.0	0.0	
PashaGrading	0.39	395	8		0.0					6.5	3.4	
PashaUtilities		0	0		0.0					0.0	0.0	
PashaPaving		0	8	13,220	0.8					6.0	3.3	
PashaFinishing		0	0		0.0					0.0	0.0	
PashaTrack Install												

Onroad Calculations																									
										2020															
										Pounds per day									Tons per year						
Code	Trip Type	Total Trucks	Single Trips/day Yearly	Miles/day Yearly	Vehicles/day Daily	Single Trips/day Daily	Miles/day Daily	Vehicle	Vehicle Type	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D
PashaDemolition	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Vendor	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	Vendor	4	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Vendor	20	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Vendor	2	2	15	1	2	15	General Truck	T7	Diesel	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Vendor	20	4	29	2	4	29	General Truck	T7	Diesel	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaDemolition	Material	432	43	864	22	44	880	General Truck	T7	Diesel	1.1	15.4	2.9	0.3	0.3	0.4	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
PashaWater Truck	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Material	492	49	984	25	50	1000	General Truck	T7	Diesel	1.2	17.5	3.3	0.3	0.3	0.5	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0
PashaUtilities	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Material	40	4	80	2	4	80	General Truck	T7	Diesel	0.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Material	0	0	0	0	0	0	General Truck	T7	Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onroad Calculations								6	2021															7		
Code	Trip Type	Metric tons per year						Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year		
		PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX
PashaDemolition	Vendor	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2
PashaWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
PashaGrading	Vendor	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2
PashaUtilities	Vendor	0.0	0.0	0.1	0.0	0.0	0.1	11	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2
PashaPaving	Vendor	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2
PashaFinishing	Vendor	0.0	0.0	0.1	0.0	0.0	0.1	6	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2
PashaTrack Install	Vendor	0.0	0.0	0.6	0.0	0.0	0.6	57	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.4
PashaDemolition	Material	0.0	0.0	33.4	0.0	0.0	35.0	3275	0.9	13.4	2.6	0.2	0.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	9.9
PashaWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
PashaGrading	Material	0.0	0.0	38.1	0.0	0.0	39.9	3729	1.0	15.2	3.0	0.3	0.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.4	11.3
PashaUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
PashaPaving	Material	0.0	0.0	3.1	0.0	0.0	3.2	303	0.1	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.9
PashaFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0
PashaTrack Install	Material	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0

Onroad Calculations		2022																	8	2023									
Code	Trip Type	Pounds per day						Tons per year								Metric tons per year				Gal per year	Pounds per day								
		CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
PashaDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Vendor	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaDemolition	Material	1.8	0.1	0.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	7.7	1.3	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0
PashaWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Material	2.0	0.1	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	8.7	1.5	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0
PashaUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Material	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onroad Calculations											9	2024																	
Code	Trip Type	Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
PashaDemolition	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Vendor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaDemolition	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	7.6	1.3	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.1	8.6	1.5	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Material	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Onroad Calculations		10	2025																			11
			Pounds per day								Tons per year								Metric tons per year			
Code	Trip Type	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year
PashaDemolition	Vendor	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaWater Truck	Vendor	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaGrading	Vendor	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Vendor	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Vendor	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Vendor	0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Vendor	0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	Material	0	0.1	7.5	1.3	0.0	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaWater Truck	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaGrading	Material	0	0.1	8.5	1.5	0.0	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Material	0	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Material	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Labor Calculations	Offsite						2020													
							Pounds per day								Tons per year								Metric tons per ye		
Code	Vehicles/ day	Single Trips/day	Miles/day	Vehicle	Vehicle Type	Fuel	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O
PashaDemolition	9	18	194	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
PashaWater Truck	0	0	0	Employee	LDA-LDT	Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
PashaUtilities	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
PashaPaving	5	10	108	Employee	LDA-LDT	Gas	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
PashaFinishing	6	12	130	Employee	LDA-LDT	Gas	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
PashaTrack Install	9	18	194	Employee	LDA-LDT	Gas	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0

Labor Calculations		6	2021																			7						
Code	ear CO2e	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year	Pounds per day					
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D
PashaDemolition	1.2	136	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0
PashaWater Truck	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	0.8	91	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0
PashaUtilities	0.1	15	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0
PashaPaving	0.7	76	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0
PashaFinishing	0.1	9	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0
PashaTrack Install	0.6	68	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0

Labor Calculations	2022														8	2023													
Code	Tons per year										Metric tons per year					Pounds per day								Tons per yea				
	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	Gal per year	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5
PashaDemolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations								9	2024																
Code	ır			Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
PashaDemolition	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaWater Truck	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaGrading	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaUtilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaPaving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaFinishing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PashaTrack Install	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Labor Calculations	10	2025																				11
Code	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
PashaDemolition	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaWater Truck	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaGrading	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaPaving	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0

Demolition		Onsite								
Code	Structures	tons/day	Pounds per day							
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
PashaDemolition	Roadways	133						2.9	0.4	

Offroad Calculations	Location	Onsite							2020															
Mitigated									3	4	5	6	7			8								
Phase	Equip	#/day	hrs/day	CMOD	HP Bin	HP	LF	Fuel	Pounds per day								Tons per year							
									ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2
Pasha																								
PashaDemolition	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaDemolition	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaDemolition	RT Loader	1	8	Rubber Tired Loaders	250	199	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaDemolition	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaWater Truck	Water Truck	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaGrading	RT Dozer	1	8	Rubber Tired Dozers	500	255	0.4	Diesel	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaGrading	RT Loader	1	8	Rubber Tired Loaders	120	97	0.4	Diesel	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaGrading	Scrapers	2	8	Scrapers	500	361	0.5	Diesel	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.1	0.2	0.0	0.0			0.0
PashaUtilities	Excavator	1	8	Excavators	175	162	0.4	Diesel	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaUtilities	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Grader	1	8	Graders	175	174	0.4	Diesel	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Paver	1	8	Pavers	175	125	0.4	Diesel	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Roller	1	8	Rollers	120	80	0.4	Diesel	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaPaving	Skid Steer Loader	1	8	Skid Steer Loaders	120	64	0.4	Diesel	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Bore/Drill Rigs	1	8	Bore/Drill Rigs	250	205	0.5	Diesel	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Cranes	1	8	Cranes	250	226	0.3	Diesel	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Off-Highway Truck	1	8	Off-Highway Trucks	500	400	0.4	Diesel	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaFinishing	Tractor/Loader/Backhoe	1	8	Tractors/Loaders/Backhoes	120	97	0.4	Diesel	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaTrack Install	Forklift	1	8	Forklifts	120	89	0.2	Diesel	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0
PashaTrack Install	Air Compressor	1	8	Air Compressors	50	48	0.5	Diesel	0.0	1.1	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0

Offroad Calculations	Location					6	2021															7			
Mitigated		9	10	11			3	4	5	6	7		8							9	10	11			3	4	5
Phase	Equip	Metric tons per year				Gal per year	Pounds per day							Tons per year							Metric tons per year				Gal per year			
		CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO
Pasha																													
PashaDemolition	Excavator	4.7	0.0	0.0	4.7	458	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8
PashaDemolition	RT Dozer	7.7	0.0	0.0	7.9	758	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6
PashaDemolition	RT Loader	5.4	0.0	0.0	5.5	530	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3
PashaDemolition	Skid Steer Loader	1.8	0.0	0.0	1.8	174	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5
PashaWater Truck	Water Truck	7.5	0.0	0.0	7.7	738	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0
PashaGrading	RT Dozer	7.7	0.0	0.0	7.9	758	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6
PashaGrading	RT Loader	2.6	0.0	0.0	2.7	256	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3
PashaGrading	Scrapers	26.3	0.0	0.0	26.7	2577	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0
PashaUtilities	Excavator	0.9	0.0	0.0	0.9	92	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8
PashaUtilities	Tractor/Loader/Backhoe	0.5	0.0	0.0	0.6	53	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3
PashaPaving	Grader	5.4	0.0	0.0	5.5	533	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3
PashaPaving	Paver	3.9	0.0	0.0	4.0	385	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4
PashaPaving	Roller	2.3	0.0	0.0	2.3	223	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0
PashaPaving	Skid Steer Loader	1.8	0.0	0.0	1.8	174	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5
PashaFinishing	Bore/Drill Rigs	0.8	0.0	0.0	0.8	75	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7
PashaFinishing	Cranes	0.5	0.0	0.0	0.5	48	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0
PashaFinishing	Off-Highway Truck	1.2	0.0	0.0	1.2	114	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0
PashaFinishing	Tractor/Loader/Backhoe	0.3	0.0	0.0	0.3	27	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3
PashaTrack Install	Forklift	0.7	0.0	0.0	0.7	66	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	1.2
PashaTrack Install	Air Compressor	1.0	0.0	0.0	1.1	103	0.0	1.1	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.1	1.5

Offroad Calculations	Location	2022																8	2023											
Mitigated		6	7			8								9	10	11			3	4	5	6	7			8				
Phase	Equip	Pounds per day					Tons per year							Metric tons per year				Gal per year	Pounds per day								Tons per year			
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO
Pasha																														
PashaDemolition	Excavator	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0
PashaDemolition	RT Dozer	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0
PashaDemolition	RT Loader	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaDemolition	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0
PashaWater Truck	Water Truck	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0
PashaGrading	RT Dozer	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0
PashaGrading	RT Loader	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaGrading	Scrapers	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0
PashaUtilities	Excavator	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0
PashaUtilities	Tractor/Loader/Backhoe	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Grader	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Paver	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Roller	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0
PashaPaving	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0
PashaFinishing	Bore/Drill Rigs	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0
PashaFinishing	Cranes	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0
PashaFinishing	Off-Highway Truck	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0
PashaFinishing	Tractor/Loader/Backhoe	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0
PashaTrack Install	Forklift	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0
PashaTrack Install	Air Compressor	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.1	1.5	0.1	0.1			0.0	0.0	0.0	0.0

Offroad Calculations	Location										9									2024											
Mitigated							9	10	11			3	4	5	6	7			8									9	10	11		
Phase	Equip	Tons per year					Metric tons per year				Gal per year	Pounds per day								Tons per year								Metric tons per year			
		PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e		ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e
Pasha																															
PashaDemolition	Excavator	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	RT Dozer	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	RT Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaDemolition	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaWater Truck	Water Truck	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	RT Dozer	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	RT Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaGrading	Scrapers	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaUtilities	Excavator	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaUtilities	Tractor/Loader/Backhoe	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Grader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Paver	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Roller	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaPaving	Skid Steer Loader	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Bore/Drill Rigs	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Cranes	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Off-Highway Truck	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaFinishing	Tractor/Loader/Backhoe	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Forklift	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0
PashaTrack Install	Air Compressor	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0	0.0	1.1	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0

Offroad Calculations	Location	10	2025																		11
Mitigated			3	4	5	6	7			8								9	10	11	
Phase	Equip	Gal per year	Pounds per day								Tons per year								Metric tons per year				Gal per year
			ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	SO2	CO2	CH4	N2O	CO2e	
Pasha																							
PashaDemolition	Excavator	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	RT Dozer	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	RT Loader	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaDemolition	Skid Steer Loader	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaWater Truck	Water Truck	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	RT Dozer	0	0.2	4.1	4.6	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	RT Loader	0	0.1	1.4	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaGrading	Scrapers	0	0.7	14.3	16.0	0.5	0.5			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Excavator	0	0.1	2.5	2.8	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaUtilities	Tractor/Loader/Backhoe	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Grader	0	0.2	2.9	3.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Paver	0	0.1	2.1	2.4	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Roller	0	0.1	1.2	2.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaPaving	Skid Steer Loader	0	0.0	1.0	1.5	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Bore/Drill Rigs	0	0.2	4.2	4.7	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Cranes	0	0.1	2.7	3.0	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Off-Highway Truck	0	0.3	6.3	7.0	0.2	0.2			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaFinishing	Tractor/Loader/Backhoe	0	0.1	1.5	2.3	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Forklift	0	0.0	0.7	1.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0
PashaTrack Install	Air Compressor	0	0.0	1.1	1.5	0.1	0.1			0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0

Construction by Component
Common Calculations

NCB Construction - Marine Sources

Component	Year	Equipment	Number of Pieces Used	Total Work Days (5/week)	Pounds per day							kg/day			Days	Tons per year					Metric tons per year			
					ROG	NOX	CO	PM10	PM2.5	PM10 D	PM2.5 D	CO2	CH4	N2O		ROG	NOX	CO	PM10	PM2.5	CO2	CH4	N2O	CO2e
Granger HallMove	**2020**	Tug	1	3	1.63	11.49	10.59	0.27	0.27	0	0	592	0.01	0.03	3	0.00	0.02	0.02	0.00	0.00	2	0.00	0.00	2
GrangerHall Move	**2020**	Material Barge	1	3	-	-	-	-	-	0	0	-	-	-	3	-	-	-	-	-	-	-	-	-

NCB Construction - Marine Sources

													offroad lookup	*5*	*7*	*6*	*9*	*10*							
							14	*14*	*4*	*4*			*marine lookup*	*8*	*5*	*9*	*6*	*7*							
							HP		Load		Hours per day		Pounds per day						Tons per year					Metric tons per year			
Component	Equipment	Number of Pieces Used	Total Work Days	Distance (nm)	Time to anchor	Travel speed	Main	Aux	Main	Aux	Main	Aux	ROG	NOX	CO	PM10	PM2.5	ROG	NOX	CO	PM10	PM2.5	CO2	CH4	N2O	CO2e
Pier and Dock Pilings	**Crane Barge**																									
Pier and Dock Pilings	Crane Barge	1	66				n/a	275	n/a	0.42	n/a	8	1.65	11.69	9.29	0.42	0.40	0.05	0.39	0.31	0.01	0.01	29.65	0.00	0.00	30
Pier and Dock Pilings	Tug Drop-off	1	1	4	1	6	2000	176	0.5	0.31	1.6	1.6	2.06	15.18	14.54	0.32	0.31	0.00	0.01	0.01	0.00	0.00	1	0.00	0.00	1
Pier and Dock Pilings	Tug Removal	1	1	4	1	6	2000	176	0.5	0.31	1.6	1.6	2.06	15.18	14.54	0.32	0.31	0.00	0.01	0.01	0.00	0.00	1	0.00	0.00	1
Pier and Dock Pilings	Push Boat Drop-off	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Push Boat Removal	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Push Boat Movements	1	66		1		450	10	0.5	0.31	1	1	0.28	2.56	1.99	0.08	0.07	0.01	0.08	0.07	0.00	0.00	7	0.00	0.00	7
Pier and Dock Pilings	**Material Barge**																						-	-	-	
Pier and Dock Pilings	Material Barge	1	66				n/a	n/a	n/a	n/a	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pier and Dock Pilings	Material Barge Drop-off	1	1	4	1	6	n/a	n/a	n/a	n/a	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pier and Dock Pilings	Material Barge Removal	1	1	4	1	6	n/a	n/a	n/a	n/a	n/a	n/a	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pier and Dock Pilings	Push Boat Drop-off	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Push Boat Removal	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Push Boat Movements	1	66		1		450	10	0.5	0.31	1	1	0.28	2.56	1.99	0.08	0.07	0.01	0.08	0.07	0.00	0.00	7	0.00	0.00	7
Pier and Dock Pilings	Jet Pump	1	66				n/a	350	n/a	0.71	n/a	8	2.98	22.89	17.90	0.70	0.68	0.10	0.76	0.59	0.02	0.02	64	0.00	0.00	65
Pier and Dock Pilings	**Skiffs**																									
Pier and Dock Pilings	Skiff Arrival	3	1	4		6	60	n/a	0.32	n/a	1.7	n/a	0.90	0.64	49.58	0.79	0.77	0.00	0.00	0.02	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Skiff Departure	3	1	4		6	60	n/a	0.32	n/a	1.7	n/a	0.90	0.64	49.58	0.79	0.77	0.00	0.00	0.02	0.00	0.00	0	0.00	0.00	0
Pier and Dock Pilings	Skiff Dock Movements	3	66		1		60	n/a	0.32	n/a	3	n/a	1.55	1.11	85.59	1.37	1.33	0.05	0.04	2.82	0.05	0.04	5	0.02	0.00	6
Place Floating Docks	Shoreside Crane	1	66				n/a	231	n/a	0.29	n/a	8	0.38	4.53	3.12	0.18	0.17	0.01	0.15	0.10	0.01	0.01	37	0.01	0.00	37
Place Floating Docks	**Skiffs**																									
Place Floating Docks	Skiff Arrival	3	1	4		6	60	n/a	0.32	n/a	1.7	n/a	0.90	0.64	49.58	0.79	0.77	0.00	0.00	0.02	0.00	0.00	0	0.00	0.00	0
Place Floating Docks	Skiff Departure	3	1	4		6	60	n/a	0.32	n/a	1.7	n/a	0.90	0.64	49.58	0.79	0.77	0.00	0.00	0.02	0.00	0.00	0	0.00	0.00	0
Place Floating Docks	Skiff Dock Movements	3	66		1		60	n/a	0.32	n/a	3	n/a	1.55	1.11	85.59	1.37	1.33	0.05	0.04	2.82	0.05	0.04	5	0.02	0.00	6
Setting Moorings	**Barge**																									
Setting Moorings	Barge	1	44				n/a	275	n/a	0.42	n/a	8	1.65	11.69	9.29	0.42	0.40	0.04	0.26	0.20	0.01	0.01	20	0.00	0.00	20
Setting Moorings	Tug Drop-off	1	1	4	1	6	2000	176	0.5	0.31	1.6	1.6	2.06	15.18	14.54	0.32	0.31	0.00	0.01	0.01	0.00	0.00	1	0.00	0.00	1
Setting Moorings	Tug Removal	1	1	4	1	6	2000	176	0.5	0.31	1.6	1.6	2.06	15.18	14.54	0.32	0.31	0.00	0.01	0.01	0.00	0.00	1	0.00	0.00	1
Setting Moorings	Push Boat Drop-off	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Setting Moorings	Push Boat Removal	1	1	4		6	450	10	0.5	0.31	0.6	0.6	0.16	1.48	1.16	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0	0.00	0.00	0
Setting Moorings	Push Boat Movements	1	66		1		450	10	0.5	0.31	1	1	0.28	2.56	1.99	0.08	0.07	0.01	0.08	0.07	0.00	0.00	7	0.00	0.00	7

Marine EFs

Equipment	Engine	MY	Num Engines	HP Each	LF	Useful Life	Annual Hours	12000 hr Cap	kW
Tug	Prop	2012	2	1000	0.50	21	2274	5.28	746
	Aux	2012	2	88	0.31	23	2486	4.83	66
Push Boat	Prop	2012	1	450	0.50	21	2274	5.28	336
	Aux	2012	1	10	0.31	23	2486	4.83	7
Crane Barge	Aux	2012	1	275	0.42	9	290		205
Jet Pump	Aux	2012	1	350	0.71	21	390		261

Zero Hour Emission Factors (g/hp-hr)

Equipment	Engine	NOx	PM10	PM2.5	ROG	CO	SOx	CO2	CH4	N2O
Tug	Prop	4.085	0.080	0.078	0.680	3.730	0.127	486.196	0.013	0.023
	Aux	5.320	0.220	0.213	1.178	3.730	0.127	486.196	0.024	0.023
Push Boat	Prop	5.102	0.150	0.146	0.680	3.730	0.127	486.196	0.013	0.023
	Aux	5.320	0.220	0.213	2.142	3.730	0.127	486.196	0.043	0.023
Crane Barge	Aux	5.102	0.150	0.146	0.809	3.730	0.127	486.196	0.016	0.023
Jet Pump	Aux	5.102	0.150	0.146	0.809	3.730	0.127	486.196	0.016	0.023

Fuel Correction Factors

MY	NOx	PM10	PM2.5	ROG	CO	SOx	CO2	CH4	N2O
2011+	0.948	0.852	0.852	0.720	1.000	0.110	1.000	0.720	0.948

Deterioration Factors

HP Range	NOX	PM10	PM2.5	ROG	CO
25 -50	0.06	0.31	0.31	0.51	0.41
51-250	0.14	0.44	0.44	0.28	0.16
> 250	0.21	0.67	0.67	0.44	0.25

2020 Emission Factors (g/hp-hr)

Equipment	Engine	Lookup	No	Hp	LF	NOx	PM10	PM2.5	ROG	CO	SOx	CO2	CH4	N2O	Total HP
Tug	Main	TugMain	2	1000	0.50	4.077	0.080	0.077	0.544	3.964	0.014	486.196	0.010	0.022	2000
Tug	Aux	TugAux	2	88	0.31	5.192	0.205	0.199	0.898	3.855	0.014	486.196	0.017	0.022	176
Push Boat	Main	Push BoatMain	1	450	0.50	5.091	0.149	0.145	0.544	3.964	0.014	486.196	0.010	0.022	450
Push Boat	Aux	Push BoatAux	1	10	0.31	5.107	0.200	0.194	1.707	4.051	0.014	486.196	0.031	0.022	10
Crane Barge	Aux	Crane BargeAux	1	275	0.42	5.739	0.204	0.198	0.810	4.559	0.014	486.196	0.012	0.022	275
Jet Pump	Aux	Jet PumpAux	1	350	0.71	5.223	0.160	0.156	0.680	4.085	0.014	486.196	0.012	0.022	350

Gasoline Equip — 2020 Emission Factors (g/hp-hr)

	Engine	Engine	No	Hp	LF	NOx	PM10	PM2.5	ROG	CO	SOx	CO2	CH4	N2O	Total HP
Skiff	Main	SkiffMain	1	60	0.32	2.90	3.60	3.49	4.08	224.66	0.01	429.44	2.08	0.01	60

Table 3.3 OFFROAD Default Horsepower and Load Factors

OFFROAD Equipment Type	Horsepower	Load Factor
Aerial Lifts	63	0.31
Air Compressors	78	0.48
Bore/Drill Rigs	221	0.50
Cement and Mortar Mixers	9	0.56
Concrete/Industrial Saws	81	0.73
Cranes	231	0.29
Crawler Tractors	212	0.43
Crushing/Proc. Equipment	85	0.78
Dumpers/Tenders	16	0.38
Excavators	158	0.38
Forklifts	89	0.20
Generator Sets	84	0.74
Graders	187	0.41
Off-Highway Tractors	124	0.44
Off-Highway Trucks	402	0.38
Other Construction Equipment	172	0.42
Other General Industrial Equipment	88	0.34
Other Material Handling Equipment	168	0.40
Pavers	130	0.42
Paving Equipment	132	0.36
Plate Compactors	8	0.43
Pressure Washers	13	0.30
Pumps	84	0.74
Rollers	80	0.38
Rough Terrain Forklifts	100	0.40
Rubber Tired Dozers	247	0.40
Rubber Tired Loaders	203	0.36
Scrapers	367	0.48
Signal Boards	6	0.82
Skid Steer Loaders	65	0.37
Surfacing Equipment	263	0.30
Sweepers/Scrubbers	64	0.46
Tractors/Loaders/Backhoes	97	0.37
Trenchers	78	0.50
Welders	46	0.45

Table 3.4 OFFROAD Equipment Emission Factors (g/bhp-hr)

Equipment Typ	Year	Lookup	Low HP	High HP	TOG	ROG	CO	NOX	SO2	PM10	PM2.5	CO2	CH4	N2O
Cranes	2020	Cranes2020	251	500	0.381547	0.321	2.66037	3.86243	0.005	0.155	0.142	472.5579	0.153	0.01204375
Cranes	2021	Cranes2021	251	500	0.351498	0.295	2.44833	3.44253	0.005	0.139	0.127	472.4553	0.153	0.01204265
Cranes	2022	Cranes2022	251	500	0.31051	0.261	2.21201	2.89369	0.005	0.117	0.108	472.1806	0.153	0.01204463
Cranes	2023	Cranes2023	251	500	0.281202	0.236	2.01	2.5105	0.005	0.102	0.093	472.294	0.153	0.01204439
Cranes	2024	Cranes2024	251	500	0.274315	0.231	1.93263	2.38291	0.005	0.096	0.089	472.0664	0.153	0.01204413
Cranes	2025	Cranes2025	251	500	0.259914	0.218	1.83363	2.15424	0.005	0.088	0.081	471.9671	0.153	0.01204454
Pumps	2020	Pumps2020	251	500	20.565	0.203	1.017	1.841	0.005	0.057	0.057	568.3	0.018	0.01447186
Pumps	2021	Pumps2021	251	500	19.186	0.189	1.007	1.584	0.005	0.05	0.05	568.299	0.017	0.01447186
Pumps	2022	Pumps2022	251	500	18.249	0.18	1.001	1.404	0.005	0.044	0.044	568.3	0.016	0.01447186
Pumps	2023	Pumps2023	251	500	17.411	0.171	0.998	1.246	0.005	0.038	0.038	568.3	0.015	0.01447186
Pumps	2024	Pumps2024	251	500	16.61	0.164	0.994	1.098	0.005	0.033	0.033	568.299	0.014	0.01447189
Pumps	2025	Pumps2025	251	500	15.837	0.156	0.992	0.958	0.005	0.028	0.028	568.3	0.014	0.01447186
			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Aerial Lifts	2020	2020Aerial Lifts15	15	0.17	2.95	3.10	0.03	0.03	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2020	2020Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2020	2020Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Aerial Lifts	2021	2021Aerial Lifts15	15	0.16	2.92	3.11	0.03	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2021	2021Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2021	2021Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Aerial Lifts	2022	2022Aerial Lifts15	15	0.16	2.91	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2022	2022Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2022	2022Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Aerial Lifts	2023	2023Aerial Lifts15	15	0.16	2.90	3.12	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2023	2023Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2023	2023Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Aerial Lifts	2024	2024Aerial Lifts15	15	0.16	2.89	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2024	2024Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2024	2024Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Aerial Lifts	2025	2025Aerial Lifts15	15	0.15	2.88	3.09	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.11	0.15	0.01
Aerial Lifts	2025	2025Aerial Lifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Aerial Lifts	2025	2025Aerial Lifts750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Air Compressors	2020	2020Air Compressors15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Air Compressors	2020	2020Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Air Compressors	2020	2020Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.09	0.01
Air Compressors	2020	2020Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Air Compressors	2020	2020Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2021	2021Air Compressors15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Air Compressors	2021	2021Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Air Compressors	2021	2021Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.08	0.01
Air Compressors	2021	2021Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Air Compressors	2021	2021Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2021	2021Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2022	2022Air Compressors15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Air Compressors	2022	2022Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Air Compressors	2022	2022Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Air Compressors	2022	2022Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Air Compressors	2022	2022Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2022	2022Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2023	2023Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Air Compressors	2023	2023Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Air Compressors	2023	2023Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Air Compressors	2023	2023Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2023	2023Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Air Compressors	2024	2024Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2024	2024Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Air Compressors	2025	2025Air Compressors25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Air Compressors	2025	2025Air Compressors50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2025	2025Air Compressors120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Air Compressors	2025	2025Air Compressors175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs15	15	0.72	4.65	4.51	0.29	0.27	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	463.58	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	477.72	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	466.83	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.82	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.67	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs15	15	0.71	4.63	4.55	0.29	0.27	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	464.97	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	477.05	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	467.99	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.82	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	474.08	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.82	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs15	15	0.63	4.28	4.33	0.24	0.22	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	462.27	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	477.37	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	468.76	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	467.19	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	477.14	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.92	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs15	15	0.61	4.21	4.31	0.23	0.21	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	461.21	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	479.65	0.16	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.71	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	464.04	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	479.22	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.02	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs15	15	0.61	4.16	4.33	0.22	0.20	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	461.21	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.94	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.71	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	464.48	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	480.22	0.16	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.93	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs15	15	0.59	3.98	4.27	0.19	0.18	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs25	25	0.29	4.63	4.10	0.28	0.28	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs50	50	0.12	2.74	3.70	0.19	0.19	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs120	120	0.12	2.32	3.70	0.11	0.11	0.00	459.83	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.27	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.65	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs500	500	0.12	2.32	2.60	0.09	0.09	0.00	467.29	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs750	750	0.12	2.32	2.60	0.09	0.09	0.00	481.25	0.16	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.92	0.15	0.01
Cement and Mortar Mixers	2020	2020Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2020	2020Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Cement and Mortar Mixers	2021	2021Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2021	2021Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2022	2022Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2022	2022Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2023	2023Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2023	2023Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2024	2024Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2024	2024Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2025	2025Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2025	2025Cement and Mortar Mixers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Cranes	2020	2020Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.93	0.17	0.01
Cranes	2020	2020Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.88	0.15	0.01
Cranes	2020	2020Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.59	0.15	0.01
Cranes	2020	2020Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.95	0.15	0.01
Cranes	2020	2020Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.56	0.15	0.01
Cranes	2020	2020Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.43	0.15	0.01
Cranes	2020	2020Cranes9999	9999	0.18	2.36	1.00	0.06	0.06	0.00	472.05	0.15	0.01
Cranes	2021	2021Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.90	0.17	0.01
Cranes	2021	2021Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.89	0.15	0.01
Cranes	2021	2021Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.55	0.15	0.01
Cranes	2021	2021Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.91	0.15	0.01
Cranes	2021	2021Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.46	0.15	0.01
Cranes	2021	2021Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.55	0.15	0.01
Cranes	2021	2021Cranes9999	9999	0.19	2.37	1.01	0.06	0.06	0.00	472.05	0.15	0.01
Cranes	2022	2022Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.87	0.17	0.01
Cranes	2022	2022Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.99	0.15	0.01
Cranes	2022	2022Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.59	0.15	0.01
Cranes	2022	2022Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.98	0.15	0.01
Cranes	2022	2022Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.18	0.15	0.01
Cranes	2022	2022Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.48	0.15	0.01
Cranes	2022	2022Cranes9999	9999	0.20	2.39	1.02	0.06	0.06	0.00	472.05	0.15	0.01
Cranes	2023	2023Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.87	0.17	0.01
Cranes	2023	2023Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.89	0.15	0.01
Cranes	2023	2023Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.60	0.15	0.01
Cranes	2023	2023Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.97	0.15	0.01
Cranes	2023	2023Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.29	0.15	0.01
Cranes	2023	2023Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.25	0.15	0.01
Cranes	2023	2023Cranes9999	9999	0.21	2.40	1.02	0.06	0.06	0.00	472.05	0.15	0.01
Cranes	2024	2024Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.87	0.17	0.01
Cranes	2024	2024Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.90	0.15	0.01
Cranes	2024	2024Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.64	0.15	0.01
Cranes	2024	2024Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.96	0.15	0.01
Cranes	2024	2024Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.07	0.15	0.01
Cranes	2024	2024Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.33	0.15	0.01
Cranes	2024	2024Cranes9999	9999	0.22	2.41	1.03	0.06	0.06	0.00	472.05	0.15	0.01
Cranes	2025	2025Cranes50	50	0.12	2.74	3.70	0.19	0.19	0.01	517.87	0.17	0.01
Cranes	2025	2025Cranes120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.53	0.15	0.01
Cranes	2025	2025Cranes175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.75	0.15	0.01
Cranes	2025	2025Cranes250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.98	0.15	0.01
Cranes	2025	2025Cranes500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.97	0.15	0.01
Cranes	2025	2025Cranes750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.28	0.15	0.01
Cranes	2025	2025Cranes9999	9999	0.23	2.42	1.04	0.06	0.06	0.00	472.05	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	515.68	0.17	0.01
Crawler Tractors	2020	2020Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.33	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.01	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.94	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	475.23	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.31	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	475.65	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	516.11	0.17	0.01
Crawler Tractors	2021	2021Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.44	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.42	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.92	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.48	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.09	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.82	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	516.15	0.17	0.01
Crawler Tractors	2022	2022Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.02	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.57	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.10	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.41	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.88	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	470.70	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	516.16	0.17	0.01
Crawler Tractors	2023	2023Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.16	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.78	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.62	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.61	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.53	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Crawler Tractors	2023	2023Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	473.67	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	515.47	0.17	0.01
Crawler Tractors	2024	2024Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.23	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.83	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.86	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.02	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.28	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	474.64	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors50	50	0.12	2.74	3.70	0.19	0.19	0.01	516.13	0.17	0.01
Crawler Tractors	2025	2025Crawler Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.13	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.59	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.62	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.01	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.41	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	475.49	0.15	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.09	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment9999	9999	0.33	3.70	1.15	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.08	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment9999	9999	0.31	3.49	1.14	0.08	0.08	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment9999	9999	0.30	3.31	1.12	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment9999	9999	0.29	3.16	1.11	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment9999	9999	0.27	3.03	1.10	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment9999	9999	0.26	2.91	1.09	0.05	0.05	0.01	568.30	0.02	0.01
Dumpers/Tenders	2020	2020Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Dumpers/Tenders	2021	2021Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Dumpers/Tenders	2022	2022Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Dumpers/Tenders	2023	2023Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Dumpers/Tenders	2024	2024Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Dumpers/Tenders	2025	2025Dumpers/Tenders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Excavators	2020	2020Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.37	0.17	0.01
Excavators	2020	2020Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.37	0.17	0.01
Excavators	2020	2020Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	468.05	0.15	0.01
Excavators	2020	2020Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.29	0.15	0.01
Excavators	2020	2020Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.88	0.15	0.01
Excavators	2020	2020Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Excavators	2020	2020Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	468.87	0.15	0.01
Excavators	2021	2021Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.38	0.17	0.01
Excavators	2021	2021Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.38	0.17	0.01
Excavators	2021	2021Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	467.79	0.15	0.01
Excavators	2021	2021Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.36	0.15	0.01
Excavators	2021	2021Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.79	0.15	0.01
Excavators	2021	2021Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.62	0.15	0.01
Excavators	2021	2021Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	469.55	0.15	0.01
Excavators	2022	2022Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.45	0.17	0.01
Excavators	2022	2022Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.45	0.17	0.01
Excavators	2022	2022Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	467.63	0.15	0.01
Excavators	2022	2022Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.19	0.15	0.01
Excavators	2022	2022Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.04	0.15	0.01
Excavators	2022	2022Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.71	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Excavators	2022	2022Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	469.29	0.15	0.01
Excavators	2023	2023Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.43	0.17	0.01
Excavators	2023	2023Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.43	0.17	0.01
Excavators	2023	2023Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	467.16	0.15	0.01
Excavators	2023	2023Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.28	0.15	0.01
Excavators	2023	2023Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.21	0.15	0.01
Excavators	2023	2023Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.89	0.15	0.01
Excavators	2023	2023Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	468.68	0.15	0.01
Excavators	2024	2024Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.98	0.17	0.01
Excavators	2024	2024Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.98	0.17	0.01
Excavators	2024	2024Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	467.38	0.15	0.01
Excavators	2024	2024Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.43	0.15	0.01
Excavators	2024	2024Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.44	0.15	0.01
Excavators	2024	2024Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.71	0.15	0.01
Excavators	2024	2024Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	468.65	0.15	0.01
Excavators	2025	2025Excavators25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.78	0.17	0.01
Excavators	2025	2025Excavators50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.78	0.17	0.01
Excavators	2025	2025Excavators120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.74	0.15	0.01
Excavators	2025	2025Excavators175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.50	0.15	0.01
Excavators	2025	2025Excavators250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.56	0.15	0.01
Excavators	2025	2025Excavators500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.29	0.15	0.01
Excavators	2025	2025Excavators750	750	0.12	2.32	2.60	0.09	0.09	0.00	468.56	0.15	0.01
Forklifts	2020	2020Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2020	2020Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2020	2020Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2020	2020Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2020	2020Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Forklifts	2021	2021Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2021	2021Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2021	2021Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2021	2021Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2021	2021Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Forklifts	2022	2022Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2022	2022Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2022	2022Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2022	2022Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2022	2022Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Forklifts	2023	2023Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2023	2023Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2023	2023Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2023	2023Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2023	2023Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Forklifts	2024	2024Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2024	2024Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2024	2024Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2024	2024Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2024	2024Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Forklifts	2025	2025Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.48	0.17	0.01
Forklifts	2025	2025Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.53	0.15	0.01
Forklifts	2025	2025Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Forklifts	2025	2025Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.33	0.15	0.01
Forklifts	2025	2025Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.62	0.15	0.01
Generator Sets	2020	2020Generator Sets15	15	0.65	4.52	3.55	0.21	0.21	0.01	568.30	0.06	0.01
Generator Sets	2020	2020Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Generator Sets	2020	2020Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2020	2020Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Generator Sets	2020	2020Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets9999	9999	0.24	3.61	1.08	0.08	0.08	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets15	15	0.63	4.44	3.53	0.20	0.20	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Generator Sets	2021	2021Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets9999	9999	0.22	3.37	1.06	0.07	0.07	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets15	15	0.63	4.39	3.52	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2022	2022Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Generator Sets	2022	2022Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Generator Sets	2022	2022Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Generator Sets	2022	2022Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets9999	9999	0.21	3.20	1.05	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2023	2023Generator Sets15	15	0.62	4.35	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2023	2023Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Generator Sets	2023	2023Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Generator Sets	2023	2023Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Generator Sets	2023	2023Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2023	2023Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets9999	9999	0.19	3.06	1.03	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2024	2024Generator Sets15	15	0.61	4.31	3.50	0.18	0.18	0.01	568.30	0.06	0.01
Generator Sets	2024	2024Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Generator Sets	2024	2024Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.04	0.01
Generator Sets	2024	2024Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Generator Sets	2024	2024Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2024	2024Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets9999	9999	0.18	2.93	1.02	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets15	15	0.61	4.27	3.49	0.18	0.18	0.01	568.30	0.05	0.01
Generator Sets	2025	2025Generator Sets25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Generator Sets	2025	2025Generator Sets50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.04	0.01
Generator Sets	2025	2025Generator Sets120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets9999	9999	0.17	2.81	1.01	0.05	0.05	0.01	568.30	0.02	0.01
Graders	2020	2020Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	492.86	0.16	0.01
Graders	2020	2020Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.34	0.15	0.01
Graders	2020	2020Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.04	0.15	0.01
Graders	2020	2020Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	475.30	0.15	0.01
Graders	2020	2020Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.98	0.15	0.01
Graders	2020	2020Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Graders	2021	2021Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	492.94	0.16	0.01
Graders	2021	2021Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.07	0.15	0.01
Graders	2021	2021Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.53	0.15	0.01
Graders	2021	2021Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.54	0.15	0.01
Graders	2021	2021Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.90	0.15	0.01
Graders	2021	2021Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Graders	2022	2022Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	493.02	0.16	0.01
Graders	2022	2022Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.63	0.15	0.01
Graders	2022	2022Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.57	0.15	0.01
Graders	2022	2022Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.24	0.15	0.01
Graders	2022	2022Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.93	0.15	0.01
Graders	2022	2022Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Graders	2023	2023Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	494.02	0.16	0.01
Graders	2023	2023Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.29	0.15	0.01
Graders	2023	2023Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.46	0.15	0.01
Graders	2023	2023Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.93	0.15	0.01
Graders	2023	2023Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.03	0.15	0.01
Graders	2023	2023Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Graders	2024	2024Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	493.79	0.16	0.01
Graders	2024	2024Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.82	0.15	0.01
Graders	2024	2024Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.50	0.15	0.01
Graders	2024	2024Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.67	0.15	0.01
Graders	2024	2024Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.27	0.15	0.01
Graders	2024	2024Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Graders	2025	2025Graders50	50	0.12	2.74	3.70	0.19	0.19	0.01	493.53	0.16	0.01
Graders	2025	2025Graders120	120	0.12	2.32	3.70	0.11	0.11	0.00	468.32	0.15	0.01
Graders	2025	2025Graders175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.51	0.15	0.01
Graders	2025	2025Graders250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.47	0.15	0.01
Graders	2025	2025Graders500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.75	0.15	0.01
Graders	2025	2025Graders750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.15	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.92	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.94	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.82	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.52	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.92	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.00	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.81	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.23	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.81	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.13	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.94	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.09	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.00	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.85	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.93	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.37	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.10	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.69	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.92	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Off-Highway Tractors	2024	2024Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.92	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.30	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.86	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.92	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.10	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.17	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.58	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.75	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	469.89	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.29	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.19	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.54	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.99	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.06	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.18	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.62	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.71	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.98	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.34	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.29	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.45	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	475.05	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.77	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.86	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.26	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.11	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	475.22	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.84	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	473.10	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.00	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.13	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks500	500	0.12	2.32	2.60	0.09	0.09	0.00	474.97	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks750	750	0.12	2.32	2.60	0.09	0.09	0.00	476.31	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	473.37	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment15	15	1.07	5.04	5.40	0.41	0.37	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.22	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.98	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	475.23	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment15	15	1.01	4.90	5.31	0.38	0.35	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.28	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.76	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	475.21	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment15	15	0.92	4.74	5.17	0.35	0.32	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.32	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.61	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	476.00	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment15	15	0.87	4.59	5.07	0.32	0.30	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.99	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.56	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	476.18	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment15	15	0.83	4.51	5.03	0.30	0.28	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.13	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.54	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	476.48	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment15	15	0.76	4.31	4.87	0.27	0.25	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.75	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.84	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	476.30	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment15	15	0.95	4.62	5.50	0.33	0.31	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Other General Industrial Equipment	2020	2020Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment15	15	0.83	4.43	5.31	0.29	0.27	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment15	15	0.70	4.20	5.08	0.24	0.22	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment15	15	0.60	3.99	4.88	0.19	0.18	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment15	15	0.55	3.86	4.78	0.17	0.15	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment15	15	0.49	3.72	4.68	0.14	0.13	0.01	526.18	0.17	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Other General Industrial Equipment	2025	2025Other General Industrial Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.00	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.85	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.22	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.46	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment9999	9999	0.20	3.61	1.05	0.08	0.07	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment9999	9999	0.07	2.32	0.97	0.02	0.02	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment9999	9999	0.08	2.33	0.98	0.02	0.02	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment9999	9999	0.05	2.27	0.94	0.02	0.02	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment9999	9999	0.06	2.28	0.95	0.02	0.02	0.00	472.05	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.59	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.22	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Other Material Handling Equipment	2025	2025Other Material Handling Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	471.48	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.30	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment9999	9999	0.07	2.30	0.96	0.02	0.02	0.00	472.05	0.15	0.01
Pavers	2020	2020Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.21	0.17	0.01
Pavers	2020	2020Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.21	0.17	0.01
Pavers	2020	2020Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.88	0.15	0.01
Pavers	2020	2020Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.77	0.15	0.01
Pavers	2020	2020Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.83	0.15	0.01
Pavers	2020	2020Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.21	0.15	0.01
Pavers	2021	2021Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.52	0.17	0.01
Pavers	2021	2021Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.52	0.17	0.01
Pavers	2021	2021Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.77	0.15	0.01
Pavers	2021	2021Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.56	0.15	0.01
Pavers	2021	2021Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.48	0.15	0.01
Pavers	2021	2021Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	465.59	0.15	0.01
Pavers	2022	2022Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.90	0.17	0.01
Pavers	2022	2022Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.90	0.17	0.01
Pavers	2022	2022Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.19	0.15	0.01
Pavers	2022	2022Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.76	0.15	0.01
Pavers	2022	2022Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.37	0.15	0.01
Pavers	2022	2022Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.00	0.15	0.01
Pavers	2023	2023Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.86	0.17	0.01
Pavers	2023	2023Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.86	0.17	0.01
Pavers	2023	2023Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.08	0.15	0.01
Pavers	2023	2023Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.72	0.15	0.01
Pavers	2023	2023Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.61	0.15	0.01
Pavers	2023	2023Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.00	0.15	0.01
Pavers	2024	2024Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.86	0.17	0.01
Pavers	2024	2024Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.86	0.17	0.01
Pavers	2024	2024Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	470.23	0.15	0.01
Pavers	2024	2024Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.66	0.15	0.01
Pavers	2024	2024Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.24	0.15	0.01
Pavers	2024	2024Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	467.17	0.15	0.01
Pavers	2025	2025Pavers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.85	0.17	0.01
Pavers	2025	2025Pavers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.85	0.17	0.01
Pavers	2025	2025Pavers120	120	0.12	2.32	3.70	0.11	0.11	0.00	469.90	0.15	0.01
Pavers	2025	2025Pavers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.49	0.15	0.01
Pavers	2025	2025Pavers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.48	0.15	0.01
Pavers	2025	2025Pavers500	500	0.12	2.32	2.60	0.09	0.09	0.00	465.88	0.15	0.01
Paving Equipment	2020	2020Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	520.12	0.17	0.01
Paving Equipment	2020	2020Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	520.12	0.17	0.01
Paving Equipment	2020	2020Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.32	0.15	0.01
Paving Equipment	2020	2020Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.74	0.15	0.01
Paving Equipment	2020	2020Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.15	0.15	0.01
Paving Equipment	2021	2021Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	520.40	0.17	0.01
Paving Equipment	2021	2021Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	520.40	0.17	0.01
Paving Equipment	2021	2021Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.22	0.15	0.01
Paving Equipment	2021	2021Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.65	0.15	0.01
Paving Equipment	2021	2021Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.15	0.15	0.01
Paving Equipment	2022	2022Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	520.66	0.17	0.01
Paving Equipment	2022	2022Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	520.66	0.17	0.01
Paving Equipment	2022	2022Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.45	0.15	0.01
Paving Equipment	2022	2022Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.66	0.15	0.01
Paving Equipment	2022	2022Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.17	0.15	0.01
Paving Equipment	2023	2023Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	521.11	0.17	0.01
Paving Equipment	2023	2023Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	521.11	0.17	0.01
Paving Equipment	2023	2023Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.43	0.15	0.01
Paving Equipment	2023	2023Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.66	0.15	0.01
Paving Equipment	2023	2023Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.17	0.15	0.01
Paving Equipment	2024	2024Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	521.06	0.17	0.01
Paving Equipment	2024	2024Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	521.06	0.17	0.01
Paving Equipment	2024	2024Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.17	0.15	0.01
Paving Equipment	2024	2024Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.66	0.15	0.01
Paving Equipment	2024	2024Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.21	0.15	0.01
Paving Equipment	2025	2025Paving Equipment25	25	0.29	4.63	4.10	0.28	0.28	0.01	521.00	0.17	0.01
Paving Equipment	2025	2025Paving Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	521.00	0.17	0.01
Paving Equipment	2025	2025Paving Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.42	0.15	0.01
Paving Equipment	2025	2025Paving Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.48	0.15	0.01
Paving Equipment	2025	2025Paving Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.23	0.15	0.01
Plate Compactors	2020	2020Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2021	2021Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2022	2022Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2023	2023Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2024	2024Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2025	2025Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Pressure Washers	2020	2020Pressure Washers15	15	0.65	4.52	3.55	0.21	0.21	0.01	568.30	0.06	0.01
Pressure Washers	2020	2020Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Pressure Washers	2020	2020Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Pressure Washers	2020	2020Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pressure Washers	2020	2020Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Pressure Washers	2020	2020Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pressure Washers	2021	2021Pressure Washers15	15	0.63	4.44	3.53	0.20	0.20	0.01	568.30	0.06	0.01
Pressure Washers	2021	2021Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pressure Washers	2021	2021Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.04	0.01
Pressure Washers	2021	2021Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2021	2021Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2021	2021Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pressure Washers	2022	2022Pressure Washers15	15	0.63	4.39	3.52	0.19	0.19	0.01	568.30	0.06	0.01
Pressure Washers	2022	2022Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pressure Washers	2022	2022Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.04	0.01
Pressure Washers	2022	2022Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2022	2022Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2022	2022Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pressure Washers	2023	2023Pressure Washers15	15	0.62	4.35	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Pressure Washers	2023	2023Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pressure Washers	2023	2023Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.03	0.01
Pressure Washers	2023	2023Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2023	2023Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2023	2023Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pressure Washers	2024	2024Pressure Washers15	15	0.61	4.31	3.50	0.18	0.18	0.01	568.30	0.06	0.01
Pressure Washers	2024	2024Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pressure Washers	2024	2024Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.03	0.01
Pressure Washers	2024	2024Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2024	2024Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2024	2024Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pressure Washers	2025	2025Pressure Washers15	15	0.61	4.27	3.49	0.18	0.18	0.01	568.30	0.05	0.01
Pressure Washers	2025	2025Pressure Washers25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pressure Washers	2025	2025Pressure Washers50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.03	0.01
Pressure Washers	2025	2025Pressure Washers120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2025	2025Pressure Washers175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2025	2025Pressure Washers250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pumps	2020	2020Pumps15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2020	2020Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Pumps	2020	2020Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps9999	9999	0.26	3.65	1.10	0.08	0.08	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Pumps	2021	2021Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Pumps	2021	2021Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2021	2021Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2021	2021Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps9999	9999	0.23	3.41	1.07	0.07	0.07	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Pumps	2022	2022Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Pumps	2022	2022Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2022	2022Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2022	2022Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps9999	9999	0.22	3.24	1.06	0.07	0.07	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2023	2023Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Pumps	2023	2023Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Pumps	2023	2023Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2023	2023Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps9999	9999	0.21	3.09	1.04	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2024	2024Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pumps	2024	2024Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Pumps	2024	2024Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2024	2024Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pumps	2024	2024Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pumps	2024	2024Pumps9999	9999	0.20	2.96	1.03	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Pumps	2025	2025Pumps25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Pumps	2025	2025Pumps50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.04	0.01
Pumps	2025	2025Pumps120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pumps	2025	2025Pumps500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Pumps	2025	2025Pumps750	750	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.01	0.01
Pumps	2025	2025Pumps9999	9999	0.19	2.84	1.02	0.05	0.05	0.01	568.30	0.02	0.01
Rollers	2020	2020Rollers15	15	0.93	4.53	4.73	0.33	0.30	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.86	0.15	0.01
Rollers	2020	2020Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.92	0.15	0.01
Rollers	2020	2020Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.37	0.15	0.01
Rollers	2020	2020Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.33	0.16	0.01
Rollers	2021	2021Rollers15	15	0.85	4.35	4.60	0.29	0.27	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.90	0.15	0.01
Rollers	2021	2021Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.98	0.15	0.01
Rollers	2021	2021Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.47	0.15	0.01
Rollers	2021	2021Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.33	0.16	0.01
Rollers	2022	2022Rollers15	15	0.74	4.13	4.40	0.25	0.23	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.93	0.15	0.01
Rollers	2022	2022Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.95	0.15	0.01
Rollers	2022	2022Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.51	0.15	0.01
Rollers	2022	2022Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	478.98	0.15	0.01
Rollers	2023	2023Rollers15	15	0.66	3.92	4.25	0.21	0.19	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.94	0.15	0.01
Rollers	2023	2023Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.94	0.15	0.01
Rollers	2023	2023Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.52	0.15	0.01
Rollers	2023	2023Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	478.30	0.15	0.01
Rollers	2024	2024Rollers15	15	0.62	3.82	4.21	0.19	0.18	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.01	0.15	0.01
Rollers	2024	2024Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.01	0.15	0.01
Rollers	2024	2024Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.51	0.15	0.01
Rollers	2024	2024Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	477.90	0.15	0.01
Rollers	2025	2025Rollers15	15	0.57	3.69	4.13	0.17	0.15	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers25	25	0.29	4.63	4.10	0.28	0.28	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers50	50	0.12	2.74	3.70	0.19	0.19	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.85	0.15	0.01
Rollers	2025	2025Rollers175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.97	0.15	0.01
Rollers	2025	2025Rollers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.68	0.15	0.01
Rollers	2025	2025Rollers500	500	0.12	2.32	2.60	0.09	0.09	0.00	477.57	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.62	0.17	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.98	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.72	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.57	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	465.77	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.38	0.17	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.11	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.76	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.55	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	465.74	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.02	0.17	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.09	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.68	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.54	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.56	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.80	0.17	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.16	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.62	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.78	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.55	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.92	0.17	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.06	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.53	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.85	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.55	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.03	0.17	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.04	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.47	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts250	250	0.12	2.32	2.60	0.09	0.09	0.00	472.93	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.54	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.01	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.79	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.76	0.16	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.06	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.05	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	472.98	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.80	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	478.99	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.05	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Rubber Tired Dozers	2021	2021Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.91	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.62	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.31	0.16	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.04	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.90	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.60	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.47	0.16	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.02	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.51	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.59	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.39	0.16	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.01	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers175	175	0.12	2.32	2.60	0.09	0.09	0.00	474.10	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers250	250	0.12	2.32	2.60	0.09	0.09	0.00	474.57	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers500	500	0.12	2.32	2.60	0.09	0.09	0.00	479.09	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers750	750	0.12	2.32	2.60	0.09	0.09	0.00	473.00	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers1000	1000	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.04	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	524.70	0.17	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.70	0.17	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	465.67	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.21	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.51	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	466.78	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	462.19	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	469.94	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	524.55	0.17	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.55	0.17	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.42	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.08	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.56	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	467.93	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	462.05	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	471.26	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	524.79	0.17	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.79	0.17	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.49	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.93	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.90	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	468.13	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	463.82	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.86	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	524.30	0.17	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.30	0.17	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.56	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.66	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.82	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	468.47	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	464.56	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.30	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	524.23	0.17	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	524.23	0.17	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.81	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.36	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.79	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	468.51	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	464.87	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.35	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	523.91	0.17	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	523.91	0.17	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	466.90	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.46	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.87	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.14	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders750	750	0.12	2.32	2.60	0.09	0.09	0.00	465.05	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders1000	1000	0.12	2.32	2.60	0.09	0.09	0.00	472.46	0.15	0.01
Scrapers	2020	2020Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	483.74	0.16	0.01
Scrapers	2020	2020Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.61	0.15	0.01
Scrapers	2020	2020Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	468.99	0.15	0.01
Scrapers	2020	2020Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.18	0.15	0.01
Scrapers	2020	2020Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.78	0.15	0.01
Scrapers	2021	2021Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	483.71	0.16	0.01
Scrapers	2021	2021Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.65	0.15	0.01
Scrapers	2021	2021Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.13	0.15	0.01
Scrapers	2021	2021Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.46	0.15	0.01
Scrapers	2021	2021Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.79	0.15	0.01
Scrapers	2022	2022Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	483.45	0.16	0.01
Scrapers	2022	2022Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.74	0.15	0.01
Scrapers	2022	2022Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.27	0.15	0.01
Scrapers	2022	2022Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.23	0.15	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Scrapers	2022	2022Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.28	0.15	0.01
Scrapers	2023	2023Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	483.03	0.16	0.01
Scrapers	2023	2023Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.68	0.15	0.01
Scrapers	2023	2023Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.56	0.15	0.01
Scrapers	2023	2023Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	473.18	0.15	0.01
Scrapers	2023	2023Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.30	0.15	0.01
Scrapers	2024	2024Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	482.70	0.16	0.01
Scrapers	2024	2024Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.81	0.15	0.01
Scrapers	2024	2024Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.35	0.15	0.01
Scrapers	2024	2024Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.85	0.15	0.01
Scrapers	2024	2024Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	471.43	0.15	0.01
Scrapers	2025	2025Scrapers120	120	0.12	2.32	3.70	0.11	0.11	0.00	482.36	0.16	0.01
Scrapers	2025	2025Scrapers175	175	0.12	2.32	2.60	0.09	0.09	0.00	478.95	0.15	0.01
Scrapers	2025	2025Scrapers250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.45	0.15	0.01
Scrapers	2025	2025Scrapers500	500	0.12	2.32	2.60	0.09	0.09	0.00	472.54	0.15	0.01
Scrapers	2025	2025Scrapers750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.11	0.15	0.01
Signal Boards	2020	2020Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2020	2020Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Signal Boards	2020	2020Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Signal Boards	2020	2020Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Signal Boards	2020	2020Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Signal Boards	2021	2021Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2021	2021Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Signal Boards	2021	2021Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2021	2021Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Signal Boards	2021	2021Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Signal Boards	2022	2022Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2022	2022Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Signal Boards	2022	2022Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2022	2022Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Signal Boards	2022	2022Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Signal Boards	2023	2023Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2023	2023Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Signal Boards	2023	2023Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2023	2023Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Signal Boards	2023	2023Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Signal Boards	2024	2024Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2024	2024Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Signal Boards	2024	2024Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2024	2024Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Signal Boards	2024	2024Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Signal Boards	2025	2025Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2025	2025Signal Boards50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Signal Boards	2025	2025Signal Boards120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2025	2025Signal Boards175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Signal Boards	2025	2025Signal Boards250	250	0.12	2.32	2.60	0.09	0.09	0.01	686.70	0.02	0.02
Skid Steer Loaders	2020	2020Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.76	0.17	0.01
Skid Steer Loaders	2020	2020Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.76	0.17	0.01
Skid Steer Loaders	2020	2020Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.91	0.15	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.45	0.17	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.45	0.17	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	471.98	0.15	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.27	0.17	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.27	0.17	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.43	0.15	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.42	0.17	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.42	0.17	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.66	0.15	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.80	0.17	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.80	0.17	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.85	0.15	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.86	0.17	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.86	0.17	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders120	120	0.12	2.32	3.70	0.11	0.11	0.00	472.63	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.53	0.17	0.01
Surfacing Equipment	2020	2020Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.82	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.21	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	476.43	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.63	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	469.63	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.78	0.17	0.01
Surfacing Equipment	2021	2021Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.09	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.17	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	476.80	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.75	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.41	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.84	0.17	0.01
Surfacing Equipment	2022	2022Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	473.64	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.13	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	476.95	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.52	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.40	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	535.93	0.17	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Surfacing Equipment	2023	2023Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.47	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.01	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	476.96	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.37	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.45	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	536.03	0.17	0.01
Surfacing Equipment	2024	2024Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.38	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	470.08	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	477.10	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.25	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.98	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment50	50	0.12	2.74	3.70	0.19	0.19	0.01	536.14	0.17	0.01
Surfacing Equipment	2025	2025Surfacing Equipment120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.77	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment175	175	0.12	2.32	2.60	0.09	0.09	0.00	471.04	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment250	250	0.12	2.32	2.60	0.09	0.09	0.00	477.11	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.28	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment750	750	0.12	2.32	2.60	0.09	0.09	0.00	470.55	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers15	15	1.34	5.10	6.16	0.46	0.43	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers15	15	1.22	4.85	5.90	0.41	0.38	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers15	15	1.01	4.49	5.45	0.33	0.31	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers15	15	0.76	4.13	4.97	0.25	0.23	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers15	15	0.75	4.08	5.00	0.24	0.22	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers15	15	0.62	3.86	4.77	0.19	0.18	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers25	25	0.29	4.63	4.10	0.28	0.28	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers50	50	0.12	2.74	3.70	0.19	0.19	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers120	120	0.12	2.32	3.70	0.11	0.11	0.00	474.12	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers175	175	0.12	2.32	2.60	0.09	0.09	0.00	473.12	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.13	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	515.87	0.17	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	515.87	0.17	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.15	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.51	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.50	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	468.24	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	468.66	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	515.12	0.17	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	515.12	0.17	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.36	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.53	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.57	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.30	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	466.46	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	514.46	0.17	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	514.46	0.17	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.90	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.80	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.12	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.26	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	466.63	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.43	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	468.82	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.75	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.47	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	466.68	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	513.85	0.17	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	513.85	0.17	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	476.73	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.40	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	469.91	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.08	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	466.64	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes25	25	0.29	4.63	4.10	0.28	0.28	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes50	50	0.12	2.74	3.70	0.19	0.19	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes120	120	0.12	2.32	3.70	0.11	0.11	0.00	477.19	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes175	175	0.12	2.32	2.60	0.09	0.09	0.00	469.33	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes250	250	0.12	2.32	2.60	0.09	0.09	0.00	470.60	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.91	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes750	750	0.12	2.32	2.60	0.09	0.09	0.00	466.45	0.15	0.01
Trenchers	2020	2020Trenchers15	15	0.90	4.68	4.83	0.36	0.33	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.13	0.15	0.01
Trenchers	2020	2020Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2020	2020Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.60	0.15	0.01
Trenchers	2020	2020Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.64	0.15	0.01
Trenchers	2020	2020Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.66	0.15	0.01
Trenchers	2021	2021Trenchers15	15	0.81	4.46	4.67	0.31	0.29	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.29	0.15	0.01
Trenchers	2021	2021Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2021	2021Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.85	0.15	0.01
Trenchers	2021	2021Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.70	0.15	0.01
Trenchers	2021	2021Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	472.53	0.15	0.01
Trenchers	2022	2022Trenchers15	15	0.72	4.27	4.52	0.28	0.25	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.33	0.15	0.01
Trenchers	2022	2022Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2022	2022Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.85	0.15	0.01
Trenchers	2022	2022Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.58	0.15	0.01
Trenchers	2022	2022Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	474.29	0.15	0.01
Trenchers	2023	2023Trenchers15	15	0.64	3.96	4.30	0.22	0.20	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.69	0.15	0.01
Trenchers	2023	2023Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2023	2023Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.85	0.15	0.01
Trenchers	2023	2023Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	471.61	0.15	0.01
Trenchers	2023	2023Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	474.47	0.15	0.01
Trenchers	2024	2024Trenchers15	15	0.60	3.83	4.23	0.20	0.18	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.63	0.15	0.01
Trenchers	2024	2024Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2024	2024Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.85	0.15	0.01
Trenchers	2024	2024Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	469.99	0.15	0.01
Trenchers	2024	2024Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	474.48	0.15	0.01
Trenchers	2025	2025Trenchers15	15	0.54	3.66	4.12	0.16	0.15	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers25	25	0.29	4.63	4.10	0.28	0.28	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers50	50	0.12	2.74	3.70	0.19	0.19	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers120	120	0.12	2.32	3.70	0.11	0.11	0.00	475.90	0.15	0.01
Trenchers	2025	2025Trenchers175	175	0.12	2.32	2.60	0.09	0.09	0.00	467.73	0.15	0.01
Trenchers	2025	2025Trenchers250	250	0.12	2.32	2.60	0.09	0.09	0.00	473.92	0.15	0.01
Trenchers	2025	2025Trenchers500	500	0.12	2.32	2.60	0.09	0.09	0.00	470.44	0.15	0.01
Trenchers	2025	2025Trenchers750	750	0.12	2.32	2.60	0.09	0.09	0.00	474.49	0.15	0.01
Welders	2020	2020Welders15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Welders	2020	2020Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Welders	2020	2020Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.08	0.01
Welders	2020	2020Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Welders	2020	2020Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Welders	2020	2020Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2020	2020Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2021	2021Welders15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Welders	2021	2021Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Welders	2021	2021Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Welders	2021	2021Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.04	0.01
Welders	2021	2021Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Welders	2021	2021Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2021	2021Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2022	2022Welders15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Welders	2022	2022Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01
Welders	2022	2022Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.07	0.01
Welders	2022	2022Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Welders	2022	2022Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Welders	2022	2022Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2022	2022Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2023	2023Welders15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2023	2023Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.07	0.01

Source: CalEEMod version 2016.3.2 (mitigated - Tier 3 equipment)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Welders	2023	2023Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2023	2023Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Welders	2023	2023Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.03	0.01
Welders	2023	2023Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2023	2023Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2024	2024Welders15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2024	2024Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Welders	2024	2024Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2024	2024Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Welders	2024	2024Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2024	2024Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2024	2024Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2025	2025Welders15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Welders	2025	2025Welders25	25	0.29	4.63	4.10	0.28	0.28	0.01	568.30	0.06	0.01
Welders	2025	2025Welders50	50	0.12	2.74	3.70	0.19	0.19	0.01	568.30	0.05	0.01
Welders	2025	2025Welders120	120	0.12	2.32	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Welders	2025	2025Welders175	175	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2025	2025Welders250	250	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01
Welders	2025	2025Welders500	500	0.12	2.32	2.60	0.09	0.09	0.01	568.30	0.02	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Aerial Lifts	2020	2020Aerial Lifts15	15	0.17	2.95	3.10	0.03	0.03	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts25	25	0.17	2.95	3.10	0.03	0.03	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts50	50	0.17	2.95	3.10	0.03	0.03	0.01	525.07	0.17	0.01
Aerial Lifts	2020	2020Aerial Lifts120	120	0.12	1.87	3.18	0.04	0.04	0.01	472.11	0.15	0.01
Aerial Lifts	2020	2020Aerial Lifts500	500	0.07	0.64	0.95	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2020	2020Aerial Lifts750	750	0.20	1.87	1.01	0.06	0.06	0.01	568.30	0.02	0.01
Aerial Lifts	2021	2021Aerial Lifts15	15	0.17	2.92	3.11	0.03	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts25	25	0.17	2.92	3.11	0.03	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts50	50	0.17	2.92	3.11	0.03	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2021	2021Aerial Lifts120	120	0.11	1.74	3.18	0.03	0.03	0.01	472.11	0.15	0.01
Aerial Lifts	2021	2021Aerial Lifts500	500	0.07	0.64	0.95	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2021	2021Aerial Lifts750	750	0.19	1.61	1.00	0.05	0.05	0.01	568.30	0.02	0.01
Aerial Lifts	2022	2022Aerial Lifts15	15	0.16	2.91	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts25	25	0.16	2.91	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts50	50	0.16	2.91	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2022	2022Aerial Lifts120	120	0.11	1.63	3.18	0.03	0.03	0.01	472.11	0.15	0.01
Aerial Lifts	2022	2022Aerial Lifts500	500	0.08	0.64	0.96	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2022	2022Aerial Lifts750	750	0.18	1.42	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Aerial Lifts	2023	2023Aerial Lifts15	15	0.16	2.90	3.12	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts25	25	0.16	2.90	3.12	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts50	50	0.16	2.90	3.12	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2023	2023Aerial Lifts120	120	0.10	1.55	3.17	0.03	0.03	0.01	472.11	0.15	0.01
Aerial Lifts	2023	2023Aerial Lifts500	500	0.08	0.64	0.96	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2023	2023Aerial Lifts750	750	0.17	1.27	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Aerial Lifts	2024	2024Aerial Lifts15	15	0.16	2.89	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts25	25	0.16	2.89	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts50	50	0.16	2.89	3.11	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2024	2024Aerial Lifts120	120	0.10	1.53	3.17	0.03	0.02	0.01	472.11	0.15	0.01
Aerial Lifts	2024	2024Aerial Lifts500	500	0.08	0.65	0.97	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2024	2024Aerial Lifts750	750	0.16	1.12	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Aerial Lifts	2025	2025Aerial Lifts15	15	0.15	2.88	3.09	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts25	25	0.15	2.88	3.09	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts50	50	0.15	2.88	3.09	0.02	0.02	0.01	525.07	0.17	0.01
Aerial Lifts	2025	2025Aerial Lifts120	120	0.10	1.51	3.17	0.03	0.02	0.01	472.11	0.15	0.01
Aerial Lifts	2025	2025Aerial Lifts500	500	0.09	0.65	0.97	0.01	0.01	0.01	472.05	0.15	0.01
Aerial Lifts	2025	2025Aerial Lifts750	750	0.15	0.97	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Air Compressors	2020	2020Air Compressors15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Air Compressors	2020	2020Air Compressors25	25	0.77	4.54	2.47	0.21	0.21	0.01	568.30	0.07	0.01
Air Compressors	2020	2020Air Compressors50	50	1.00	4.40	5.16	0.25	0.25	0.01	568.30	0.09	0.01
Air Compressors	2020	2020Air Compressors120	120	0.49	3.40	3.70	0.22	0.22	0.01	568.30	0.04	0.01
Air Compressors	2020	2020Air Compressors175	175	0.37	2.56	3.20	0.13	0.13	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors250	250	0.29	2.17	1.12	0.07	0.07	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors500	500	0.28	1.94	1.08	0.07	0.07	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors750	750	0.28	1.98	1.08	0.07	0.07	0.01	568.30	0.03	0.01
Air Compressors	2020	2020Air Compressors1000	1000	0.31	3.83	1.16	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2021	2021Air Compressors15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Air Compressors	2021	2021Air Compressors25	25	0.75	4.50	2.45	0.20	0.20	0.01	568.30	0.07	0.01
Air Compressors	2021	2021Air Compressors50	50	0.89	4.22	5.02	0.21	0.21	0.01	568.30	0.08	0.01
Air Compressors	2021	2021Air Compressors120	120	0.44	3.08	3.67	0.19	0.19	0.01	568.30	0.04	0.01
Air Compressors	2021	2021Air Compressors175	175	0.34	2.22	3.19	0.12	0.12	0.01	568.30	0.03	0.01
Air Compressors	2021	2021Air Compressors250	250	0.27	1.86	1.11	0.06	0.06	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors500	500	0.26	1.66	1.06	0.06	0.06	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors750	750	0.26	1.70	1.06	0.06	0.06	0.01	568.30	0.02	0.01
Air Compressors	2021	2021Air Compressors1000	1000	0.28	3.57	1.13	0.08	0.08	0.01	568.30	0.03	0.01
Air Compressors	2022	2022Air Compressors15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Air Compressors	2022	2022Air Compressors25	25	0.74	4.47	2.43	0.19	0.19	0.01	568.30	0.07	0.01
Air Compressors	2022	2022Air Compressors50	50	0.81	4.09	4.96	0.18	0.18	0.01	568.30	0.07	0.01
Air Compressors	2022	2022Air Compressors120	120	0.41	2.84	3.66	0.17	0.17	0.01	568.30	0.04	0.01
Air Compressors	2022	2022Air Compressors175	175	0.32	1.96	3.19	0.10	0.10	0.01	568.30	0.03	0.01
Air Compressors	2022	2022Air Compressors250	250	0.26	1.62	1.10	0.05	0.05	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors500	500	0.25	1.47	1.06	0.05	0.05	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors750	750	0.25	1.50	1.06	0.05	0.05	0.01	568.30	0.02	0.01
Air Compressors	2022	2022Air Compressors1000	1000	0.27	3.38	1.12	0.08	0.08	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2023	2023Air Compressors25	25	0.73	4.45	2.41	0.19	0.19	0.01	568.30	0.07	0.01
Air Compressors	2023	2023Air Compressors50	50	0.75	3.98	4.91	0.16	0.16	0.01	568.30	0.07	0.01
Air Compressors	2023	2023Air Compressors120	120	0.39	2.63	3.66	0.14	0.14	0.01	568.30	0.03	0.01
Air Compressors	2023	2023Air Compressors175	175	0.30	1.75	3.20	0.09	0.09	0.01	568.30	0.03	0.01
Air Compressors	2023	2023Air Compressors250	250	0.24	1.42	1.10	0.05	0.05	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors500	500	0.24	1.31	1.06	0.04	0.04	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors750	750	0.24	1.33	1.06	0.04	0.04	0.01	568.30	0.02	0.01
Air Compressors	2023	2023Air Compressors1000	1000	0.26	3.22	1.10	0.07	0.07	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors25	25	0.72	4.43	2.39	0.18	0.18	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors50	50	0.70	3.86	4.88	0.14	0.14	0.01	568.30	0.06	0.01
Air Compressors	2024	2024Air Compressors120	120	0.37	2.46	3.66	0.12	0.12	0.01	568.30	0.03	0.01
Air Compressors	2024	2024Air Compressors175	175	0.29	1.56	3.20	0.08	0.08	0.01	568.30	0.03	0.01
Air Compressors	2024	2024Air Compressors250	250	0.23	1.25	1.10	0.04	0.04	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors500	500	0.23	1.15	1.05	0.04	0.04	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors750	750	0.23	1.17	1.05	0.04	0.04	0.01	568.30	0.02	0.01
Air Compressors	2024	2024Air Compressors1000	1000	0.24	3.08	1.09	0.06	0.06	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Air Compressors	2025	2025Air Compressors25	25	0.71	4.41	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Air Compressors	2025	2025Air Compressors50	50	0.66	3.76	4.85	0.12	0.12	0.01	568.30	0.06	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Air Compressors	2025	2025Air Compressors120	120	0.35	2.31	3.65	0.10	0.10	0.01	568.30	0.03	0.01
Air Compressors	2025	2025Air Compressors175	175	0.27	1.38	3.21	0.07	0.07	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors250	250	0.22	1.09	1.09	0.03	0.03	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors500	500	0.22	1.00	1.05	0.03	0.03	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors750	750	0.22	1.02	1.05	0.03	0.03	0.01	568.30	0.02	0.01
Air Compressors	2025	2025Air Compressors1000	1000	0.23	2.95	1.08	0.06	0.06	0.01	568.30	0.02	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs15	15	0.72	4.65	4.51	0.29	0.27	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs25	25	0.72	4.65	4.51	0.29	0.27	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs50	50	0.72	4.65	4.51	0.29	0.27	0.01	535.29	0.17	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs120	120	0.25	3.07	3.32	0.16	0.15	0.01	463.58	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs175	175	0.17	1.87	2.97	0.08	0.08	0.01	477.72	0.16	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs250	250	0.14	1.81	1.07	0.05	0.05	0.01	466.83	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs500	500	0.13	1.41	1.01	0.05	0.04	0.01	466.82	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs750	750	0.11	1.23	0.97	0.04	0.04	0.01	473.67	0.15	0.01
Bore/Drill Rigs	2020	2020Bore/Drill Rigs1000	1000	0.13	3.05	0.99	0.06	0.06	0.01	471.85	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs15	15	0.71	4.63	4.55	0.29	0.27	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs25	25	0.71	4.63	4.55	0.29	0.27	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs50	50	0.71	4.63	4.55	0.29	0.27	0.01	535.38	0.17	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs120	120	0.22	2.74	3.31	0.13	0.12	0.01	464.97	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs175	175	0.15	1.60	2.96	0.07	0.06	0.01	477.05	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs250	250	0.13	1.55	1.06	0.05	0.04	0.01	467.99	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs500	500	0.12	1.22	1.01	0.04	0.04	0.01	469.82	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs750	750	0.10	0.96	0.97	0.03	0.03	0.01	474.08	0.15	0.01
Bore/Drill Rigs	2021	2021Bore/Drill Rigs1000	1000	0.14	3.06	0.99	0.06	0.06	0.01	471.82	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs15	15	0.63	4.28	4.33	0.24	0.22	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs25	25	0.63	4.28	4.33	0.24	0.22	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs50	50	0.63	4.28	4.33	0.24	0.22	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs120	120	0.19	2.42	3.26	0.11	0.10	0.01	462.27	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs175	175	0.14	1.29	2.95	0.06	0.05	0.01	477.37	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs250	250	0.12	1.16	1.05	0.04	0.03	0.01	468.76	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs500	500	0.11	1.04	1.00	0.04	0.03	0.01	467.19	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs750	750	0.09	0.77	0.98	0.03	0.03	0.01	477.14	0.15	0.01
Bore/Drill Rigs	2022	2022Bore/Drill Rigs1000	1000	0.06	2.28	0.95	0.02	0.02	0.01	472.92	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs15	15	0.61	4.21	4.31	0.23	0.21	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs25	25	0.61	4.21	4.31	0.23	0.21	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs50	50	0.61	4.21	4.31	0.23	0.21	0.01	531.99	0.17	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs120	120	0.19	2.36	3.26	0.10	0.09	0.01	461.21	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs175	175	0.13	1.08	2.97	0.05	0.04	0.01	479.65	0.16	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs250	250	0.11	1.05	1.04	0.03	0.03	0.01	469.71	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs500	500	0.10	0.90	0.99	0.03	0.03	0.01	464.04	0.15	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs750	750	0.09	0.72	0.98	0.03	0.02	0.01	479.22	0.16	0.01
Bore/Drill Rigs	2023	2023Bore/Drill Rigs1000	1000	0.05	2.26	0.94	0.02	0.02	0.01	472.02	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs15	15	0.61	4.16	4.33	0.22	0.20	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs25	25	0.61	4.16	4.33	0.22	0.20	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs50	50	0.61	4.16	4.33	0.22	0.20	0.01	529.87	0.17	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs120	120	0.18	2.22	3.25	0.09	0.08	0.01	461.21	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs175	175	0.13	1.03	2.98	0.05	0.04	0.01	478.94	0.16	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs250	250	0.11	0.98	1.05	0.03	0.03	0.01	470.71	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs500	500	0.10	0.86	0.99	0.03	0.03	0.01	464.48	0.15	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs750	750	0.09	0.67	0.98	0.03	0.02	0.01	480.22	0.16	0.01
Bore/Drill Rigs	2024	2024Bore/Drill Rigs1000	1000	0.06	2.27	0.94	0.02	0.02	0.01	471.93	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs15	15	0.59	3.98	4.27	0.19	0.18	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs25	25	0.59	3.98	4.27	0.19	0.18	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs50	50	0.59	3.98	4.27	0.19	0.18	0.01	532.82	0.17	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs120	120	0.16	1.96	3.22	0.07	0.06	0.01	459.83	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs175	175	0.11	0.89	2.97	0.04	0.04	0.01	478.27	0.16	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs250	250	0.11	0.96	1.04	0.03	0.03	0.01	470.65	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs500	500	0.10	0.82	1.00	0.03	0.03	0.01	467.29	0.15	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs750	750	0.08	0.60	0.98	0.02	0.02	0.01	481.25	0.16	0.01
Bore/Drill Rigs	2025	2025Bore/Drill Rigs1000	1000	0.06	2.29	0.95	0.02	0.02	0.01	471.92	0.15	0.01
Cement and Mortar Mixers	2020	2020Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2020	2020Cement and Mortar Mixers25	25	0.72	4.44	2.40	0.19	0.19	0.01	568.30	0.07	0.01
Cement and Mortar Mixers	2021	2021Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2021	2021Cement and Mortar Mixers25	25	0.71	4.42	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2022	2022Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2022	2022Cement and Mortar Mixers25	25	0.70	4.40	2.37	0.18	0.18	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2023	2023Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2023	2023Cement and Mortar Mixers25	25	0.70	4.38	2.36	0.17	0.17	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2024	2024Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2024	2024Cement and Mortar Mixers25	25	0.69	4.37	2.35	0.17	0.17	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2025	2025Cement and Mortar Mixers15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Cement and Mortar Mixers	2025	2025Cement and Mortar Mixers25	25	0.69	4.36	2.34	0.17	0.17	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws50	50	0.80	4.20	4.55	0.21	0.21	0.01	568.30	0.07	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws120	120	0.40	3.16	3.54	0.19	0.19	0.01	568.30	0.04	0.01
Concrete/Industrial Saws	2020	2020Concrete/Industrial Saws175	175	0.31	2.32	3.07	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws50	50	0.72	4.06	4.48	0.18	0.18	0.01	568.30	0.07	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws120	120	0.37	2.91	3.52	0.17	0.17	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2021	2021Concrete/Industrial Saws175	175	0.29	2.06	3.07	0.10	0.10	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws50	50	0.66	3.94	4.42	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws120	120	0.34	2.69	3.51	0.14	0.14	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2022	2022Concrete/Industrial Saws175	175	0.27	1.81	3.07	0.09	0.09	0.01	568.30	0.02	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws50	50	0.61	3.82	4.37	0.13	0.13	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws120	120	0.32	2.48	3.51	0.12	0.12	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2023	2023Concrete/Industrial Saws175	175	0.25	1.60	3.07	0.08	0.08	0.01	568.30	0.02	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws50	50	0.56	3.70	4.33	0.12	0.12	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws120	120	0.30	2.32	3.50	0.11	0.11	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2024	2024Concrete/Industrial Saws175	175	0.24	1.42	3.07	0.07	0.07	0.01	568.30	0.02	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws50	50	0.53	3.59	4.30	0.10	0.10	0.01	568.30	0.05	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws120	120	0.28	2.18	3.50	0.09	0.09	0.01	568.30	0.03	0.01
Concrete/Industrial Saws	2025	2025Concrete/Industrial Saws175	175	0.22	1.25	3.07	0.06	0.06	0.01	568.30	0.02	0.01
Cranes	2020	2020Cranes50	50	2.08	5.98	7.38	0.62	0.57	0.01	517.93	0.17	0.01
Cranes	2020	2020Cranes120	120	0.73	6.38	4.17	0.45	0.42	0.01	469.88	0.15	0.01
Cranes	2020	2020Cranes175	175	0.54	5.57	3.56	0.30	0.27	0.01	474.59	0.15	0.01
Cranes	2020	2020Cranes250	250	0.38	4.56	1.79	0.19	0.17	0.01	472.95	0.15	0.01
Cranes	2020	2020Cranes500	500	0.32	3.86	2.66	0.16	0.14	0.01	472.56	0.15	0.01
Cranes	2020	2020Cranes750	750	0.24	3.10	1.44	0.12	0.11	0.01	470.43	0.15	0.01
Cranes	2020	2020Cranes9999	9999	0.18	2.36	1.00	0.06	0.06	0.01	472.05	0.15	0.01
Cranes	2021	2021Cranes50	50	2.12	6.01	7.49	0.63	0.58	0.01	517.90	0.17	0.01
Cranes	2021	2021Cranes120	120	0.65	5.73	4.07	0.40	0.37	0.01	469.89	0.15	0.01
Cranes	2021	2021Cranes175	175	0.50	5.11	3.52	0.27	0.25	0.01	474.55	0.15	0.01
Cranes	2021	2021Cranes250	250	0.35	4.10	1.68	0.17	0.15	0.01	472.91	0.15	0.01
Cranes	2021	2021Cranes500	500	0.30	3.44	2.45	0.14	0.13	0.01	472.46	0.15	0.01
Cranes	2021	2021Cranes750	750	0.23	2.73	1.44	0.11	0.10	0.01	470.55	0.15	0.01
Cranes	2021	2021Cranes9999	9999	0.19	2.37	1.01	0.06	0.06	0.01	472.05	0.15	0.01
Cranes	2022	2022Cranes50	50	2.03	5.90	7.37	0.60	0.56	0.01	517.87	0.17	0.01
Cranes	2022	2022Cranes120	120	0.58	5.15	3.97	0.35	0.32	0.01	469.99	0.15	0.01
Cranes	2022	2022Cranes175	175	0.46	4.62	3.48	0.25	0.23	0.01	474.59	0.15	0.01
Cranes	2022	2022Cranes250	250	0.32	3.54	1.60	0.15	0.14	0.01	472.98	0.15	0.01
Cranes	2022	2022Cranes500	500	0.26	2.89	2.21	0.12	0.11	0.01	472.18	0.15	0.01
Cranes	2022	2022Cranes750	750	0.20	2.25	1.28	0.09	0.08	0.01	470.48	0.15	0.01
Cranes	2022	2022Cranes9999	9999	0.20	2.39	1.02	0.06	0.06	0.01	472.05	0.15	0.01
Cranes	2023	2023Cranes50	50	2.05	5.92	7.45	0.61	0.56	0.01	517.87	0.17	0.01
Cranes	2023	2023Cranes120	120	0.55	4.87	3.94	0.32	0.30	0.01	469.89	0.15	0.01
Cranes	2023	2023Cranes175	175	0.42	4.22	3.44	0.22	0.21	0.01	474.60	0.15	0.01
Cranes	2023	2023Cranes250	250	0.30	3.23	1.55	0.14	0.12	0.01	472.97	0.15	0.01
Cranes	2023	2023Cranes500	500	0.24	2.51	2.01	0.10	0.09	0.01	472.29	0.15	0.01
Cranes	2023	2023Cranes750	750	0.20	2.07	1.28	0.08	0.08	0.01	470.25	0.15	0.01
Cranes	2023	2023Cranes9999	9999	0.21	2.40	1.02	0.06	0.06	0.01	472.05	0.15	0.01
Cranes	2024	2024Cranes50	50	1.94	5.79	7.27	0.58	0.53	0.01	517.87	0.17	0.01
Cranes	2024	2024Cranes120	120	0.52	4.62	3.91	0.30	0.28	0.01	469.90	0.15	0.01
Cranes	2024	2024Cranes175	175	0.38	3.70	3.39	0.20	0.18	0.01	474.64	0.15	0.01
Cranes	2024	2024Cranes250	250	0.28	2.97	1.50	0.12	0.11	0.01	472.96	0.15	0.01
Cranes	2024	2024Cranes500	500	0.23	2.38	1.93	0.10	0.09	0.01	472.07	0.15	0.01
Cranes	2024	2024Cranes750	750	0.19	1.90	1.28	0.08	0.07	0.01	470.33	0.15	0.01
Cranes	2024	2024Cranes9999	9999	0.22	2.41	1.03	0.06	0.06	0.01	472.05	0.15	0.01
Cranes	2025	2025Cranes50	50	1.81	5.64	7.07	0.54	0.50	0.01	517.87	0.17	0.01
Cranes	2025	2025Cranes120	120	0.46	4.14	3.83	0.26	0.24	0.01	469.53	0.15	0.01
Cranes	2025	2025Cranes175	175	0.33	3.16	3.34	0.17	0.15	0.01	474.75	0.15	0.01
Cranes	2025	2025Cranes250	250	0.27	2.68	1.47	0.11	0.11	0.01	472.98	0.15	0.01
Cranes	2025	2025Cranes500	500	0.22	2.15	1.83	0.09	0.08	0.01	471.97	0.15	0.01
Cranes	2025	2025Cranes750	750	0.17	1.64	1.27	0.07	0.06	0.01	470.28	0.15	0.01
Cranes	2025	2025Cranes9999	9999	0.23	2.42	1.04	0.07	0.06	0.01	472.05	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors50	50	2.05	5.64	7.30	0.59	0.54	0.01	515.68	0.17	0.01
Crawler Tractors	2020	2020Crawler Tractors120	120	0.72	6.01	4.04	0.50	0.46	0.01	476.33	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors175	175	0.48	4.87	3.34	0.27	0.25	0.01	471.02	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors250	250	0.36	4.63	1.55	0.18	0.16	0.01	472.94	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors500	500	0.30	3.62	2.09	0.14	0.13	0.01	475.23	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors750	750	0.26	3.14	1.31	0.12	0.11	0.01	473.31	0.15	0.01
Crawler Tractors	2020	2020Crawler Tractors1000	1000	0.46	7.24	2.03	0.21	0.20	0.01	475.65	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors50	50	2.06	5.62	7.35	0.59	0.54	0.01	516.11	0.17	0.01
Crawler Tractors	2021	2021Crawler Tractors120	120	0.67	5.66	4.01	0.47	0.43	0.01	476.44	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors175	175	0.44	4.39	3.31	0.25	0.23	0.01	471.42	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors250	250	0.34	4.33	1.51	0.16	0.15	0.01	472.92	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors500	500	0.28	3.28	2.02	0.13	0.12	0.01	474.48	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors750	750	0.24	2.82	1.27	0.10	0.10	0.01	473.09	0.15	0.01
Crawler Tractors	2021	2021Crawler Tractors1000	1000	0.40	6.40	1.90	0.18	0.17	0.01	471.82	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors50	50	1.90	5.38	7.04	0.54	0.50	0.01	516.15	0.17	0.01
Crawler Tractors	2022	2022Crawler Tractors120	120	0.60	5.10	3.92	0.41	0.38	0.01	476.02	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors175	175	0.39	3.83	3.26	0.21	0.20	0.01	471.57	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors250	250	0.31	3.74	1.44	0.14	0.13	0.01	472.10	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors500	500	0.25	2.74	1.92	0.11	0.10	0.01	474.41	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors750	750	0.20	2.13	1.19	0.08	0.07	0.01	472.88	0.15	0.01
Crawler Tractors	2022	2022Crawler Tractors1000	1000	0.36	5.92	1.73	0.16	0.15	0.01	470.70	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors50	50	1.87	5.33	7.03	0.53	0.48	0.01	516.16	0.17	0.01
Crawler Tractors	2023	2023Crawler Tractors120	120	0.56	4.76	3.89	0.37	0.34	0.01	476.16	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors175	175	0.35	3.33	3.24	0.19	0.17	0.01	471.78	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors250	250	0.28	3.19	1.40	0.12	0.11	0.01	471.62	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors500	500	0.24	2.48	1.85	0.10	0.09	0.01	474.61	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors750	750	0.18	1.87	1.16	0.07	0.06	0.01	472.53	0.15	0.01
Crawler Tractors	2023	2023Crawler Tractors1000	1000	0.27	4.77	1.61	0.12	0.11	0.01	473.67	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors50	50	1.76	4.98	6.68	0.47	0.43	0.01	515.47	0.17	0.01
Crawler Tractors	2024	2024Crawler Tractors120	120	0.51	4.41	3.85	0.34	0.31	0.01	476.23	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Crawler Tractors	2024	2024Crawler Tractors175	175	0.33	3.04	3.23	0.17	0.16	0.01	471.83	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors250	250	0.26	2.95	1.37	0.12	0.11	0.01	471.86	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors500	500	0.23	2.24	1.78	0.09	0.09	0.01	474.03	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors750	750	0.18	1.77	1.16	0.07	0.06	0.01	472.28	0.15	0.01
Crawler Tractors	2024	2024Crawler Tractors1000	1000	0.26	4.69	1.59	0.12	0.11	0.01	474.64	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors50	50	1.74	4.94	6.69	0.46	0.42	0.01	516.13	0.17	0.01
Crawler Tractors	2025	2025Crawler Tractors120	120	0.45	3.96	3.79	0.29	0.26	0.01	476.13	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors175	175	0.30	2.69	3.21	0.15	0.14	0.01	471.59	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors250	250	0.23	2.46	1.31	0.10	0.09	0.01	471.62	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors500	500	0.21	1.92	1.72	0.08	0.07	0.01	474.01	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors750	750	0.17	1.54	1.12	0.06	0.05	0.01	472.41	0.15	0.01
Crawler Tractors	2025	2025Crawler Tractors1000	1000	0.26	4.60	1.59	0.11	0.10	0.01	475.49	0.15	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment50	50	0.95	4.35	5.21	0.23	0.23	0.01	568.30	0.09	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment120	120	0.47	3.25	3.72	0.21	0.21	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment175	175	0.37	2.39	3.23	0.12	0.12	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment250	250	0.29	2.01	1.13	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment500	500	0.28	1.80	1.08	0.06	0.06	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment750	750	0.28	1.84	1.08	0.06	0.06	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2020	2020Crushing/Proc. Equipment9999	9999	0.33	3.70	1.15	0.09	0.09	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment50	50	0.86	4.21	5.14	0.20	0.20	0.01	568.30	0.08	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment120	120	0.44	2.99	3.71	0.18	0.18	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment175	175	0.34	2.11	3.24	0.11	0.11	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment250	250	0.27	1.76	1.12	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment500	500	0.27	1.57	1.07	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment750	750	0.27	1.61	1.07	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2021	2021Crushing/Proc. Equipment9999	9999	0.31	3.49	1.14	0.08	0.08	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment50	50	0.80	4.08	5.08	0.17	0.17	0.01	568.30	0.07	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment120	120	0.41	2.76	3.70	0.15	0.15	0.01	568.30	0.04	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment175	175	0.32	1.86	3.24	0.10	0.10	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment250	250	0.26	1.52	1.11	0.05	0.05	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment500	500	0.26	1.39	1.07	0.05	0.05	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment750	750	0.26	1.42	1.07	0.05	0.05	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2022	2022Crushing/Proc. Equipment9999	9999	0.30	3.31	1.12	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment50	50	0.74	3.96	5.04	0.15	0.15	0.01	568.30	0.07	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment120	120	0.39	2.55	3.70	0.13	0.13	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment175	175	0.30	1.65	3.24	0.08	0.08	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment250	250	0.25	1.33	1.11	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment500	500	0.24	1.23	1.06	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment750	750	0.24	1.25	1.07	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2023	2023Crushing/Proc. Equipment9999	9999	0.29	3.16	1.11	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment50	50	0.69	3.85	5.01	0.13	0.13	0.01	568.30	0.06	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment120	120	0.36	2.39	3.70	0.11	0.11	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment175	175	0.29	1.47	3.24	0.07	0.07	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment250	250	0.24	1.17	1.11	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment500	500	0.23	1.08	1.06	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment750	750	0.23	1.10	1.06	0.04	0.04	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2024	2024Crushing/Proc. Equipment9999	9999	0.27	3.03	1.10	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment50	50	0.66	3.74	4.98	0.11	0.11	0.01	568.30	0.06	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment120	120	0.35	2.25	3.69	0.10	0.10	0.01	568.30	0.03	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment175	175	0.27	1.30	3.25	0.06	0.06	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment250	250	0.22	1.01	1.11	0.03	0.03	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment500	500	0.22	0.94	1.06	0.03	0.03	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment750	750	0.22	0.96	1.06	0.03	0.03	0.01	568.30	0.02	0.01
Crushing/Proc. Equipment	2025	2025Crushing/Proc. Equipment9999	9999	0.26	2.91	1.09	0.05	0.05	0.01	568.30	0.02	0.01
Dumpers/Tenders	2020	2020Dumpers/Tenders25	25	0.69	4.34	2.34	0.17	0.17	0.01	568.30	0.06	0.01
Dumpers/Tenders	2021	2021Dumpers/Tenders25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Dumpers/Tenders	2022	2022Dumpers/Tenders25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Dumpers/Tenders	2023	2023Dumpers/Tenders25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Dumpers/Tenders	2024	2024Dumpers/Tenders25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Dumpers/Tenders	2025	2025Dumpers/Tenders25	25	0.69	4.33	2.34	0.16	0.16	0.01	568.30	0.06	0.01
Excavators	2020	2020Excavators25	25	0.59	4.03	4.50	0.22	0.20	0.01	525.37	0.17	0.01
Excavators	2020	2020Excavators50	50	0.59	4.03	4.50	0.22	0.20	0.01	525.37	0.17	0.01
Excavators	2020	2020Excavators120	120	0.30	3.09	3.50	0.19	0.17	0.01	468.05	0.15	0.01
Excavators	2020	2020Excavators175	175	0.23	2.28	3.09	0.11	0.10	0.01	472.29	0.15	0.01
Excavators	2020	2020Excavators250	250	0.18	2.03	1.12	0.06	0.06	0.01	471.88	0.15	0.01
Excavators	2020	2020Excavators500	500	0.15	1.57	1.10	0.05	0.05	0.01	470.30	0.15	0.01
Excavators	2020	2020Excavators750	750	0.17	1.80	1.15	0.06	0.06	0.01	468.87	0.15	0.01
Excavators	2021	2021Excavators25	25	0.56	3.92	4.46	0.20	0.19	0.01	525.38	0.17	0.01
Excavators	2021	2021Excavators50	50	0.56	3.92	4.46	0.20	0.19	0.01	525.38	0.17	0.01
Excavators	2021	2021Excavators120	120	0.28	2.85	3.49	0.16	0.15	0.01	467.79	0.15	0.01
Excavators	2021	2021Excavators175	175	0.22	2.03	3.09	0.10	0.09	0.01	472.36	0.15	0.01
Excavators	2021	2021Excavators250	250	0.16	1.71	1.10	0.05	0.05	0.01	471.79	0.15	0.01
Excavators	2021	2021Excavators500	500	0.14	1.33	1.09	0.05	0.04	0.01	469.62	0.15	0.01
Excavators	2021	2021Excavators750	750	0.17	1.62	1.15	0.06	0.05	0.01	469.55	0.15	0.01
Excavators	2022	2022Excavators25	25	0.48	3.70	4.27	0.16	0.15	0.01	525.45	0.17	0.01
Excavators	2022	2022Excavators50	50	0.48	3.70	4.27	0.16	0.15	0.01	525.45	0.17	0.01
Excavators	2022	2022Excavators120	120	0.25	2.61	3.47	0.14	0.13	0.01	467.63	0.15	0.01
Excavators	2022	2022Excavators175	175	0.19	1.68	3.07	0.08	0.08	0.01	472.19	0.15	0.01
Excavators	2022	2022Excavators250	250	0.15	1.39	1.09	0.04	0.04	0.01	472.04	0.15	0.01
Excavators	2022	2022Excavators500	500	0.13	1.04	1.06	0.04	0.03	0.01	469.71	0.15	0.01
Excavators	2022	2022Excavators750	750	0.15	1.29	1.14	0.05	0.04	0.01	469.29	0.15	0.01
Excavators	2023	2023Excavators25	25	0.45	3.59	4.23	0.14	0.13	0.01	525.43	0.17	0.01
Excavators	2023	2023Excavators50	50	0.45	3.59	4.23	0.14	0.13	0.01	525.43	0.17	0.01
Excavators	2023	2023Excavators120	120	0.23	2.38	3.45	0.12	0.11	0.01	467.16	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Excavators	2023	2023Excavators175	175	0.18	1.46	3.08	0.07	0.07	0.01	472.28	0.15	0.01
Excavators	2023	2023Excavators250	250	0.14	1.21	1.09	0.04	0.04	0.01	472.21	0.15	0.01
Excavators	2023	2023Excavators500	500	0.12	0.89	1.05	0.03	0.03	0.01	469.89	0.15	0.01
Excavators	2023	2023Excavators750	750	0.14	1.16	1.13	0.04	0.04	0.01	468.68	0.15	0.01
Excavators	2024	2024Excavators25	25	0.42	3.51	4.21	0.12	0.11	0.01	525.98	0.17	0.01
Excavators	2024	2024Excavators50	50	0.42	3.51	4.21	0.12	0.11	0.01	525.98	0.17	0.01
Excavators	2024	2024Excavators120	120	0.22	2.25	3.45	0.10	0.09	0.01	467.38	0.15	0.01
Excavators	2024	2024Excavators175	175	0.17	1.32	3.08	0.07	0.06	0.01	472.43	0.15	0.01
Excavators	2024	2024Excavators250	250	0.14	1.11	1.09	0.04	0.03	0.01	472.44	0.15	0.01
Excavators	2024	2024Excavators500	500	0.12	0.83	1.05	0.03	0.03	0.01	469.71	0.15	0.01
Excavators	2024	2024Excavators750	750	0.14	1.10	1.13	0.04	0.04	0.01	468.65	0.15	0.01
Excavators	2025	2025Excavators25	25	0.40	3.45	4.22	0.11	0.10	0.01	525.78	0.17	0.01
Excavators	2025	2025Excavators50	50	0.40	3.45	4.22	0.11	0.10	0.01	525.78	0.17	0.01
Excavators	2025	2025Excavators120	120	0.20	2.08	3.44	0.09	0.08	0.01	466.74	0.15	0.01
Excavators	2025	2025Excavators175	175	0.16	1.15	3.08	0.06	0.05	0.01	472.50	0.15	0.01
Excavators	2025	2025Excavators250	250	0.13	0.96	1.08	0.03	0.03	0.01	472.56	0.15	0.01
Excavators	2025	2025Excavators500	500	0.12	0.73	1.05	0.03	0.02	0.01	470.29	0.15	0.01
Excavators	2025	2025Excavators750	750	0.14	1.03	1.13	0.04	0.04	0.01	468.56	0.15	0.01
Forklifts	2020	2020Forklifts50	50	1.12	4.69	5.71	0.36	0.33	0.01	525.48	0.17	0.01
Forklifts	2020	2020Forklifts120	120	0.46	4.13	3.76	0.31	0.28	0.01	471.53	0.15	0.01
Forklifts	2020	2020Forklifts175	175	0.34	3.32	3.25	0.18	0.17	0.01	472.11	0.15	0.01
Forklifts	2020	2020Forklifts250	250	0.29	3.24	1.44	0.13	0.12	0.01	473.33	0.15	0.01
Forklifts	2020	2020Forklifts500	500	0.25	2.44	1.48	0.10	0.09	0.01	473.62	0.15	0.01
Forklifts	2021	2021Forklifts50	50	1.00	4.52	5.53	0.32	0.29	0.01	525.48	0.17	0.01
Forklifts	2021	2021Forklifts120	120	0.41	3.76	3.72	0.27	0.25	0.01	471.53	0.15	0.01
Forklifts	2021	2021Forklifts175	175	0.31	2.92	3.23	0.16	0.15	0.01	472.11	0.15	0.01
Forklifts	2021	2021Forklifts250	250	0.25	2.58	1.34	0.10	0.09	0.01	473.33	0.15	0.01
Forklifts	2021	2021Forklifts500	500	0.25	2.30	1.48	0.09	0.09	0.01	473.62	0.15	0.01
Forklifts	2022	2022Forklifts50	50	0.86	4.31	5.30	0.27	0.25	0.01	525.48	0.17	0.01
Forklifts	2022	2022Forklifts120	120	0.36	3.36	3.68	0.22	0.21	0.01	471.53	0.15	0.01
Forklifts	2022	2022Forklifts175	175	0.27	2.48	3.20	0.13	0.12	0.01	472.11	0.15	0.01
Forklifts	2022	2022Forklifts250	250	0.24	2.32	1.32	0.09	0.08	0.01	473.33	0.15	0.01
Forklifts	2022	2022Forklifts500	500	0.23	1.99	1.22	0.08	0.07	0.01	473.62	0.15	0.01
Forklifts	2023	2023Forklifts50	50	0.77	4.15	5.17	0.23	0.21	0.01	525.48	0.17	0.01
Forklifts	2023	2023Forklifts120	120	0.33	3.06	3.65	0.19	0.17	0.01	471.53	0.15	0.01
Forklifts	2023	2023Forklifts175	175	0.24	2.11	3.18	0.11	0.10	0.01	472.11	0.15	0.01
Forklifts	2023	2023Forklifts250	250	0.20	1.81	1.24	0.07	0.06	0.01	473.33	0.15	0.01
Forklifts	2023	2023Forklifts500	500	0.22	1.79	1.22	0.07	0.06	0.01	473.62	0.15	0.01
Forklifts	2024	2024Forklifts50	50	0.69	4.04	5.09	0.20	0.19	0.01	525.48	0.17	0.01
Forklifts	2024	2024Forklifts120	120	0.30	2.81	3.63	0.16	0.15	0.01	471.53	0.15	0.01
Forklifts	2024	2024Forklifts175	175	0.22	1.86	3.17	0.10	0.09	0.01	472.11	0.15	0.01
Forklifts	2024	2024Forklifts250	250	0.20	1.63	1.22	0.06	0.06	0.01	473.33	0.15	0.01
Forklifts	2024	2024Forklifts500	500	0.22	1.72	1.22	0.07	0.06	0.01	473.62	0.15	0.01
Forklifts	2025	2025Forklifts50	50	0.64	3.93	5.03	0.18	0.16	0.01	525.48	0.17	0.01
Forklifts	2025	2025Forklifts120	120	0.28	2.61	3.61	0.14	0.13	0.01	471.53	0.15	0.01
Forklifts	2025	2025Forklifts175	175	0.21	1.65	3.17	0.08	0.08	0.01	472.11	0.15	0.01
Forklifts	2025	2025Forklifts250	250	0.19	1.47	1.21	0.06	0.05	0.01	473.33	0.15	0.01
Forklifts	2025	2025Forklifts500	500	0.22	1.66	1.22	0.06	0.06	0.01	473.62	0.15	0.01
Generator Sets	2020	2020Generator Sets15	15	0.65	4.52	3.55	0.21	0.21	0.01	568.30	0.06	0.01
Generator Sets	2020	2020Generator Sets25	25	0.72	4.54	2.47	0.21	0.21	0.01	568.30	0.07	0.01
Generator Sets	2020	2020Generator Sets50	50	0.69	4.08	4.00	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2020	2020Generator Sets120	120	0.36	3.17	3.38	0.18	0.18	0.01	568.30	0.03	0.01
Generator Sets	2020	2020Generator Sets175	175	0.27	2.38	2.93	0.11	0.11	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets250	250	0.20	2.02	1.03	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets500	500	0.19	1.82	1.01	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets750	750	0.19	1.86	1.01	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2020	2020Generator Sets9999	9999	0.24	3.61	1.08	0.08	0.08	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets15	15	0.63	4.44	3.53	0.20	0.20	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets25	25	0.71	4.50	2.45	0.20	0.20	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets50	50	0.61	3.92	3.91	0.17	0.17	0.01	568.30	0.06	0.01
Generator Sets	2021	2021Generator Sets120	120	0.33	2.89	3.36	0.15	0.15	0.01	568.30	0.03	0.01
Generator Sets	2021	2021Generator Sets175	175	0.24	2.07	2.93	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets250	250	0.18	1.73	1.02	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets500	500	0.18	1.56	1.00	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets750	750	0.18	1.60	1.00	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2021	2021Generator Sets9999	9999	0.22	3.37	1.06	0.07	0.07	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets15	15	0.63	4.39	3.52	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2022	2022Generator Sets25	25	0.71	4.47	2.43	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2022	2022Generator Sets50	50	0.56	3.80	3.86	0.14	0.14	0.01	568.30	0.05	0.01
Generator Sets	2022	2022Generator Sets120	120	0.30	2.67	3.35	0.13	0.13	0.01	568.30	0.03	0.01
Generator Sets	2022	2022Generator Sets175	175	0.23	1.83	2.93	0.08	0.08	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets250	250	0.17	1.51	1.01	0.04	0.04	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets500	500	0.17	1.38	0.99	0.04	0.04	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets750	750	0.17	1.41	0.99	0.04	0.04	0.01	568.30	0.02	0.01
Generator Sets	2022	2022Generator Sets9999	9999	0.21	3.20	1.05	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2023	2023Generator Sets15	15	0.62	4.35	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Generator Sets	2023	2023Generator Sets25	25	0.70	4.45	2.41	0.18	0.18	0.01	568.30	0.06	0.01
Generator Sets	2023	2023Generator Sets50	50	0.51	3.69	3.82	0.12	0.12	0.01	568.30	0.05	0.01
Generator Sets	2023	2023Generator Sets120	120	0.28	2.48	3.35	0.12	0.12	0.01	568.30	0.03	0.01
Generator Sets	2023	2023Generator Sets175	175	0.21	1.64	2.93	0.07	0.07	0.01	568.30	0.02	0.01
Generator Sets	2023	2023Generator Sets250	250	0.16	1.33	1.01	0.04	0.04	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets500	500	0.16	1.23	0.99	0.04	0.04	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets750	750	0.16	1.25	0.99	0.04	0.04	0.01	568.30	0.01	0.01
Generator Sets	2023	2023Generator Sets9999	9999	0.19	3.06	1.03	0.06	0.06	0.01	568.30	0.02	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Generator Sets	2024	2024Generator Sets15	15	0.61	4.31	3.50	0.18	0.18	0.01	568.30	0.06	0.01
Generator Sets	2024	2024Generator Sets25	25	0.70	4.43	2.39	0.18	0.18	0.01	568.30	0.06	0.01
Generator Sets	2024	2024Generator Sets50	50	0.48	3.58	3.79	0.11	0.11	0.01	568.30	0.04	0.01
Generator Sets	2024	2024Generator Sets120	120	0.26	2.32	3.34	0.10	0.10	0.01	568.30	0.02	0.01
Generator Sets	2024	2024Generator Sets175	175	0.20	1.46	2.93	0.06	0.06	0.01	568.30	0.02	0.01
Generator Sets	2024	2024Generator Sets250	250	0.16	1.17	1.00	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets500	500	0.15	1.08	0.98	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets750	750	0.15	1.10	0.98	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2024	2024Generator Sets9999	9999	0.18	2.93	1.02	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets15	15	0.61	4.27	3.49	0.18	0.18	0.01	568.30	0.05	0.01
Generator Sets	2025	2025Generator Sets25	25	0.69	4.41	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Generator Sets	2025	2025Generator Sets50	50	0.44	3.48	3.76	0.09	0.09	0.01	568.30	0.04	0.01
Generator Sets	2025	2025Generator Sets120	120	0.24	2.19	3.34	0.09	0.09	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets175	175	0.18	1.30	2.93	0.05	0.05	0.01	568.30	0.02	0.01
Generator Sets	2025	2025Generator Sets250	250	0.15	1.02	1.00	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets500	500	0.14	0.95	0.98	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets750	750	0.15	0.96	0.98	0.03	0.03	0.01	568.30	0.01	0.01
Generator Sets	2025	2025Generator Sets9999	9999	0.17	2.81	1.01	0.05	0.05	0.01	568.30	0.02	0.01
Graders	2020	2020Graders50	50	2.52	5.83	8.13	0.71	0.65	0.01	492.86	0.16	0.01
Graders	2020	2020Graders120	120	0.98	7.73	4.56	0.62	0.57	0.01	469.34	0.15	0.01
Graders	2020	2020Graders175	175	0.57	5.53	3.62	0.31	0.28	0.01	478.04	0.16	0.01
Graders	2020	2020Graders250	250	0.35	4.68	1.34	0.15	0.14	0.01	475.30	0.15	0.01
Graders	2020	2020Graders500	500	0.32	3.11	1.53	0.12	0.11	0.01	471.98	0.15	0.01
Graders	2020	2020Graders750	750	0.32	2.03	1.23	0.07	0.07	0.01	568.30	0.03	0.01
Graders	2021	2021Graders50	50	2.24	5.48	7.63	0.63	0.58	0.01	492.94	0.16	0.01
Graders	2021	2021Graders120	120	0.90	7.13	4.45	0.57	0.52	0.01	469.07	0.15	0.01
Graders	2021	2021Graders175	175	0.51	4.84	3.56	0.27	0.25	0.01	478.53	0.16	0.01
Graders	2021	2021Graders250	250	0.34	4.38	1.31	0.14	0.13	0.01	474.54	0.15	0.01
Graders	2021	2021Graders500	500	0.32	3.01	1.46	0.12	0.11	0.01	471.90	0.15	0.01
Graders	2021	2021Graders750	750	0.30	1.81	1.21	0.06	0.06	0.01	568.30	0.03	0.01
Graders	2022	2022Graders50	50	2.11	5.33	7.43	0.60	0.55	0.01	493.02	0.16	0.01
Graders	2022	2022Graders120	120	0.80	6.36	4.33	0.49	0.45	0.01	469.63	0.15	0.01
Graders	2022	2022Graders175	175	0.44	4.12	3.49	0.23	0.21	0.01	478.57	0.16	0.01
Graders	2022	2022Graders250	250	0.31	3.89	1.27	0.12	0.11	0.01	474.24	0.15	0.01
Graders	2022	2022Graders500	500	0.31	2.80	1.39	0.11	0.10	0.01	471.93	0.15	0.01
Graders	2022	2022Graders750	750	0.29	1.61	1.19	0.06	0.06	0.01	568.30	0.03	0.01
Graders	2023	2023Graders50	50	1.95	5.15	7.19	0.55	0.51	0.01	494.02	0.16	0.01
Graders	2023	2023Graders120	120	0.72	5.74	4.23	0.44	0.40	0.01	469.29	0.15	0.01
Graders	2023	2023Graders175	175	0.39	3.55	3.45	0.20	0.18	0.01	478.46	0.16	0.01
Graders	2023	2023Graders250	250	0.28	3.44	1.25	0.11	0.10	0.01	473.93	0.15	0.01
Graders	2023	2023Graders500	500	0.31	2.70	1.38	0.11	0.10	0.01	471.03	0.15	0.01
Graders	2023	2023Graders750	750	0.28	1.43	1.17	0.05	0.05	0.01	568.30	0.02	0.01
Graders	2024	2024Graders50	50	1.85	5.03	7.05	0.52	0.48	0.01	493.79	0.16	0.01
Graders	2024	2024Graders120	120	0.68	5.43	4.20	0.41	0.38	0.01	469.82	0.15	0.01
Graders	2024	2024Graders175	175	0.36	3.20	3.43	0.18	0.16	0.01	478.50	0.16	0.01
Graders	2024	2024Graders250	250	0.26	3.07	1.22	0.10	0.09	0.01	473.67	0.15	0.01
Graders	2024	2024Graders500	500	0.29	2.43	1.36	0.10	0.09	0.01	470.27	0.15	0.01
Graders	2024	2024Graders750	750	0.26	1.27	1.16	0.05	0.05	0.01	568.30	0.02	0.01
Graders	2025	2025Graders50	50	1.86	5.04	7.13	0.52	0.48	0.01	493.53	0.16	0.01
Graders	2025	2025Graders120	120	0.64	5.07	4.15	0.37	0.34	0.01	468.32	0.15	0.01
Graders	2025	2025Graders175	175	0.33	2.77	3.42	0.15	0.14	0.01	478.51	0.16	0.01
Graders	2025	2025Graders250	250	0.23	2.56	1.18	0.08	0.08	0.01	473.47	0.15	0.01
Graders	2025	2025Graders500	500	0.28	2.26	1.31	0.09	0.08	0.01	470.75	0.15	0.01
Graders	2025	2025Graders750	750	0.25	1.13	1.14	0.04	0.04	0.01	568.30	0.02	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors120	120	0.45	4.18	3.79	0.31	0.28	0.01	474.15	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors175	175	0.27	2.89	3.22	0.14	0.13	0.01	472.92	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors250	250	0.22	2.58	1.18	0.09	0.08	0.01	470.94	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors750	750	0.20	2.05	1.13	0.08	0.07	0.01	471.82	0.15	0.01
Off-Highway Tractors	2020	2020Off-Highway Tractors1000	1000	0.15	2.40	1.02	0.06	0.06	0.01	472.05	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors120	120	0.40	3.77	3.74	0.26	0.24	0.01	474.52	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors175	175	0.26	2.66	3.22	0.13	0.12	0.01	472.92	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors250	250	0.20	2.11	1.16	0.07	0.07	0.01	471.00	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors750	750	0.18	1.72	1.12	0.06	0.06	0.01	471.81	0.15	0.01
Off-Highway Tractors	2021	2021Off-Highway Tractors1000	1000	0.16	2.41	1.03	0.06	0.06	0.01	472.05	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors120	120	0.35	3.40	3.71	0.22	0.20	0.01	475.23	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors175	175	0.23	2.24	3.19	0.11	0.10	0.01	472.81	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors250	250	0.18	1.73	1.14	0.06	0.06	0.01	471.13	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors750	750	0.17	1.43	1.12	0.06	0.05	0.01	471.94	0.15	0.01
Off-Highway Tractors	2022	2022Off-Highway Tractors1000	1000	0.17	2.43	1.04	0.07	0.06	0.01	472.05	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors120	120	0.32	3.10	3.69	0.19	0.17	0.01	476.09	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors175	175	0.20	1.78	3.14	0.09	0.08	0.01	473.00	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors250	250	0.17	1.49	1.14	0.05	0.05	0.01	470.85	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors750	750	0.17	1.29	1.12	0.05	0.05	0.01	471.93	0.15	0.01
Off-Highway Tractors	2023	2023Off-Highway Tractors1000	1000	0.18	2.45	1.06	0.07	0.06	0.01	472.05	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors120	120	0.30	2.95	3.69	0.17	0.16	0.01	476.37	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors175	175	0.18	1.50	3.13	0.07	0.07	0.01	473.10	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors250	250	0.17	1.38	1.13	0.05	0.05	0.01	470.69	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors750	750	0.17	1.23	1.13	0.05	0.04	0.01	471.92	0.15	0.01
Off-Highway Tractors	2024	2024Off-Highway Tractors1000	1000	0.19	2.47	1.07	0.07	0.06	0.01	472.05	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors120	120	0.28	2.71	3.67	0.14	0.13	0.01	476.92	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors175	175	0.18	1.35	3.14	0.07	0.06	0.01	473.30	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors250	250	0.15	1.12	1.13	0.04	0.04	0.01	470.86	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors750	750	0.17	1.12	1.13	0.05	0.04	0.01	471.92	0.15	0.01
Off-Highway Tractors	2025	2025Off-Highway Tractors1000	1000	0.20	2.48	1.08	0.07	0.06	0.01	472.05	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Off-Highway Trucks	2020	2020Off-Highway Trucks175	175	0.31	2.63	3.34	0.14	0.13	0.01	470.10	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks250	250	0.28	2.51	1.39	0.10	0.09	0.01	470.17	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks500	500	0.25	2.35	1.41	0.09	0.08	0.01	474.58	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks750	750	0.31	3.06	2.03	0.12	0.11	0.01	472.75	0.15	0.01
Off-Highway Trucks	2020	2020Off-Highway Trucks1000	1000	0.30	4.79	1.37	0.13	0.12	0.01	469.89	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks175	175	0.28	2.25	3.32	0.11	0.10	0.01	470.29	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks250	250	0.25	2.11	1.35	0.08	0.08	0.01	470.19	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks500	500	0.23	1.95	1.34	0.07	0.07	0.01	474.54	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks750	750	0.29	2.67	1.94	0.11	0.10	0.01	472.99	0.15	0.01
Off-Highway Trucks	2021	2021Off-Highway Trucks1000	1000	0.26	4.16	1.25	0.10	0.09	0.01	471.06	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks175	175	0.24	1.81	3.28	0.09	0.08	0.01	470.18	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks250	250	0.22	1.62	1.28	0.06	0.06	0.01	469.62	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks500	500	0.20	1.49	1.25	0.05	0.05	0.01	474.71	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks750	750	0.26	2.27	1.75	0.09	0.08	0.01	473.98	0.15	0.01
Off-Highway Trucks	2022	2022Off-Highway Trucks1000	1000	0.23	3.84	1.21	0.09	0.08	0.01	472.34	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks175	175	0.24	1.68	3.30	0.08	0.07	0.01	470.29	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks250	250	0.21	1.46	1.27	0.06	0.05	0.01	469.45	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks500	500	0.19	1.32	1.22	0.05	0.04	0.01	475.05	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks750	750	0.26	2.18	1.72	0.08	0.08	0.01	473.77	0.15	0.01
Off-Highway Trucks	2023	2023Off-Highway Trucks1000	1000	0.21	3.54	1.19	0.07	0.07	0.01	472.86	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks175	175	0.22	1.49	3.32	0.07	0.06	0.01	470.26	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks250	250	0.20	1.36	1.26	0.05	0.05	0.01	469.11	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks500	500	0.18	1.24	1.21	0.04	0.04	0.01	475.22	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks750	750	0.26	2.08	1.65	0.08	0.07	0.01	473.84	0.15	0.01
Off-Highway Trucks	2024	2024Off-Highway Trucks1000	1000	0.21	3.44	1.20	0.07	0.06	0.01	473.10	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks175	175	0.21	1.34	3.33	0.07	0.06	0.01	470.00	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks250	250	0.19	1.13	1.21	0.04	0.04	0.01	469.13	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks500	500	0.18	1.06	1.18	0.04	0.04	0.01	474.97	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks750	750	0.24	1.75	1.58	0.07	0.06	0.01	476.31	0.15	0.01
Off-Highway Trucks	2025	2025Off-Highway Trucks1000	1000	0.19	3.14	1.15	0.06	0.05	0.01	473.37	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment15	15	1.07	5.04	5.40	0.41	0.37	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment25	25	1.07	5.04	5.40	0.41	0.37	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment50	50	1.07	5.04	5.40	0.41	0.37	0.01	527.97	0.17	0.01
Other Construction Equipment	2020	2020Other Construction Equipment120	120	0.52	4.77	3.73	0.35	0.33	0.01	472.22	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment175	175	0.39	4.11	3.24	0.22	0.20	0.01	469.98	0.15	0.01
Other Construction Equipment	2020	2020Other Construction Equipment500	500	0.22	2.64	1.63	0.10	0.09	0.01	475.23	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment15	15	1.01	4.90	5.31	0.38	0.35	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment25	25	1.01	4.90	5.31	0.38	0.35	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment50	50	1.01	4.90	5.31	0.38	0.35	0.01	527.78	0.17	0.01
Other Construction Equipment	2021	2021Other Construction Equipment120	120	0.48	4.46	3.70	0.32	0.30	0.01	472.28	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment175	175	0.33	3.44	3.18	0.18	0.17	0.01	469.76	0.15	0.01
Other Construction Equipment	2021	2021Other Construction Equipment500	500	0.22	2.43	1.60	0.09	0.08	0.01	475.21	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment15	15	0.92	4.74	5.17	0.35	0.32	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment25	25	0.92	4.74	5.17	0.35	0.32	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment50	50	0.92	4.74	5.17	0.35	0.32	0.01	529.18	0.17	0.01
Other Construction Equipment	2022	2022Other Construction Equipment120	120	0.44	4.10	3.67	0.29	0.27	0.01	472.32	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment175	175	0.30	2.99	3.16	0.16	0.14	0.01	469.61	0.15	0.01
Other Construction Equipment	2022	2022Other Construction Equipment500	500	0.19	1.98	1.44	0.07	0.07	0.01	476.00	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment15	15	0.87	4.59	5.07	0.32	0.30	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment25	25	0.87	4.59	5.07	0.32	0.30	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment50	50	0.87	4.59	5.07	0.32	0.30	0.01	529.34	0.17	0.01
Other Construction Equipment	2023	2023Other Construction Equipment120	120	0.41	3.79	3.63	0.26	0.24	0.01	471.99	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment175	175	0.27	2.70	3.14	0.14	0.13	0.01	469.56	0.15	0.01
Other Construction Equipment	2023	2023Other Construction Equipment500	500	0.18	1.81	1.40	0.07	0.06	0.01	476.18	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment15	15	0.83	4.51	5.03	0.31	0.28	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment25	25	0.83	4.51	5.03	0.31	0.28	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment50	50	0.83	4.51	5.03	0.31	0.28	0.01	529.21	0.17	0.01
Other Construction Equipment	2024	2024Other Construction Equipment120	120	0.38	3.58	3.62	0.24	0.22	0.01	472.13	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment175	175	0.26	2.52	3.15	0.13	0.12	0.01	469.54	0.15	0.01
Other Construction Equipment	2024	2024Other Construction Equipment500	500	0.18	1.68	1.38	0.06	0.06	0.01	476.48	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment15	15	0.76	4.31	4.87	0.27	0.25	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment25	25	0.76	4.31	4.87	0.27	0.25	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment50	50	0.76	4.31	4.87	0.27	0.25	0.01	528.95	0.17	0.01
Other Construction Equipment	2025	2025Other Construction Equipment120	120	0.34	3.25	3.58	0.20	0.19	0.01	472.75	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment175	175	0.24	2.17	3.14	0.11	0.10	0.01	469.84	0.15	0.01
Other Construction Equipment	2025	2025Other Construction Equipment500	500	0.17	1.55	1.36	0.06	0.06	0.01	476.30	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment15	15	0.95	4.62	5.50	0.33	0.31	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment25	25	0.95	4.62	5.50	0.33	0.31	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment50	50	0.95	4.62	5.50	0.33	0.31	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment120	120	0.45	4.06	3.77	0.30	0.27	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment175	175	0.27	2.58	3.23	0.14	0.12	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment250	250	0.24	2.67	1.24	0.09	0.08	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment500	500	0.21	2.06	1.34	0.07	0.07	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment750	750	0.18	1.68	1.46	0.06	0.06	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2020	2020Other General Industrial Equipment1000	1000	0.27	4.86	1.09	0.12	0.11	0.01	472.05	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment15	15	0.83	4.43	5.31	0.29	0.27	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment25	25	0.83	4.43	5.31	0.29	0.27	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment50	50	0.83	4.43	5.31	0.29	0.27	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment120	120	0.40	3.72	3.74	0.26	0.24	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment175	175	0.25	2.35	3.23	0.12	0.11	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment250	250	0.20	2.09	1.17	0.07	0.06	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment500	500	0.20	1.80	1.33	0.06	0.06	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment750	750	0.17	1.39	1.46	0.05	0.05	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2021	2021Other General Industrial Equipment1000	1000	0.28	4.88	1.09	0.12	0.11	0.01	472.05	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	2	3	4	5	6	7	8	9	10	11
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Other General Industrial Equipment	2022	2022Other General Industrial Equipment15	15	0.70	4.20	5.08	0.24	0.22	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment25	25	0.70	4.20	5.08	0.24	0.22	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment50	50	0.70	4.20	5.08	0.24	0.22	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment120	120	0.34	3.20	3.67	0.20	0.18	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment175	175	0.24	2.15	3.23	0.11	0.10	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment250	250	0.19	1.76	1.14	0.06	0.05	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment500	500	0.18	1.43	1.17	0.05	0.05	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment750	750	0.15	1.06	1.46	0.05	0.04	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2022	2022Other General Industrial Equipment1000	1000	0.19	3.94	1.04	0.08	0.07	0.01	472.05	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment15	15	0.60	3.99	4.88	0.19	0.18	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment25	25	0.60	3.99	4.88	0.19	0.18	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment50	50	0.60	3.99	4.88	0.19	0.18	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment120	120	0.31	2.92	3.65	0.17	0.16	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment175	175	0.20	1.61	3.17	0.08	0.07	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment250	250	0.18	1.53	1.14	0.05	0.05	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment500	500	0.16	1.26	1.12	0.04	0.04	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment750	750	0.11	0.63	1.10	0.02	0.02	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2023	2023Other General Industrial Equipment1000	1000	0.19	3.96	1.05	0.08	0.07	0.01	472.05	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment15	15	0.55	3.86	4.78	0.17	0.15	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment25	25	0.55	3.86	4.78	0.17	0.15	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment50	50	0.55	3.86	4.78	0.17	0.15	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment120	120	0.29	2.71	3.64	0.15	0.13	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment175	175	0.19	1.45	3.19	0.07	0.07	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment250	250	0.17	1.32	1.14	0.05	0.04	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment500	500	0.16	1.15	1.11	0.04	0.04	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment750	750	0.12	0.63	1.11	0.02	0.02	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2024	2024Other General Industrial Equipment1000	1000	0.20	3.97	1.06	0.08	0.07	0.01	472.05	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment15	15	0.49	3.72	4.68	0.14	0.13	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment25	25	0.49	3.72	4.68	0.14	0.13	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment50	50	0.49	3.72	4.68	0.14	0.13	0.01	526.18	0.17	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment120	120	0.26	2.44	3.61	0.12	0.11	0.01	470.00	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment175	175	0.19	1.36	3.20	0.07	0.07	0.01	471.85	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment250	250	0.16	1.03	1.13	0.04	0.03	0.01	473.22	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment500	500	0.15	1.05	1.11	0.04	0.03	0.01	472.93	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment750	750	0.12	0.63	1.12	0.02	0.02	0.01	473.46	0.15	0.01
Other General Industrial Equipment	2025	2025Other General Industrial Equipment1000	1000	0.20	3.99	1.07	0.08	0.07	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment50	50	1.25	5.14	6.17	0.44	0.40	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment120	120	0.31	3.10	3.59	0.18	0.17	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment175	175	0.25	2.37	3.17	0.12	0.11	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment250	250	0.29	3.60	1.32	0.12	0.11	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment500	500	0.28	3.21	1.52	0.12	0.11	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2020	2020Other Material Handling Equipment9999	9999	0.20	3.61	1.05	0.08	0.07	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment50	50	1.11	4.97	5.96	0.40	0.36	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment120	120	0.29	2.96	3.60	0.17	0.15	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment175	175	0.25	2.25	3.20	0.11	0.11	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment250	250	0.27	3.08	1.31	0.10	0.09	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment500	500	0.25	2.60	1.44	0.10	0.09	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2021	2021Other Material Handling Equipment9999	9999	0.07	2.32	0.97	0.02	0.02	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment50	50	1.10	4.92	5.98	0.39	0.35	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment120	120	0.25	2.57	3.56	0.12	0.11	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment175	175	0.23	1.89	3.18	0.10	0.10	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment250	250	0.23	2.43	1.24	0.08	0.08	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment500	500	0.23	2.06	1.35	0.08	0.08	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2022	2022Other Material Handling Equipment9999	9999	0.08	2.33	0.98	0.02	0.02	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment50	50	1.01	4.68	5.76	0.34	0.31	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment120	120	0.23	2.30	3.52	0.10	0.10	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment175	175	0.22	1.77	3.17	0.10	0.09	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment250	250	0.21	2.00	1.21	0.07	0.06	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment500	500	0.22	1.87	1.34	0.08	0.07	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2023	2023Other Material Handling Equipment9999	9999	0.05	2.27	0.94	0.02	0.02	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment50	50	0.94	4.58	5.67	0.31	0.29	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment120	120	0.22	2.22	3.51	0.10	0.09	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment175	175	0.21	1.64	3.18	0.09	0.08	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment250	250	0.21	1.99	1.22	0.07	0.06	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment500	500	0.21	1.76	1.26	0.07	0.07	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2024	2024Other Material Handling Equipment9999	9999	0.06	2.28	0.95	0.02	0.02	0.01	472.05	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment50	50	0.74	4.23	5.25	0.24	0.22	0.01	523.71	0.17	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment120	120	0.20	2.06	3.50	0.08	0.07	0.01	473.59	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment175	175	0.19	1.40	3.17	0.07	0.07	0.01	472.22	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment250	250	0.20	1.77	1.20	0.06	0.06	0.01	471.48	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment500	500	0.20	1.60	1.26	0.07	0.06	0.01	470.30	0.15	0.01
Other Material Handling Equipment	2025	2025Other Material Handling Equipment9999	9999	0.07	2.30	0.96	0.02	0.02	0.01	472.05	0.15	0.01
Pavers	2020	2020Pavers25	25	1.32	4.76	5.52	0.40	0.37	0.01	526.21	0.17	0.01
Pavers	2020	2020Pavers50	50	1.32	4.76	5.52	0.40	0.37	0.01	526.21	0.17	0.01
Pavers	2020	2020Pavers120	120	0.47	4.43	3.60	0.33	0.30	0.01	469.88	0.15	0.01
Pavers	2020	2020Pavers175	175	0.27	2.92	3.01	0.14	0.13	0.01	472.77	0.15	0.01
Pavers	2020	2020Pavers250	250	0.18	2.78	1.03	0.08	0.07	0.01	472.83	0.15	0.01
Pavers	2020	2020Pavers500	500	0.17	2.13	0.99	0.08	0.07	0.01	466.21	0.15	0.01
Pavers	2021	2021Pavers25	25	1.21	4.60	5.30	0.37	0.34	0.01	526.52	0.17	0.01
Pavers	2021	2021Pavers50	50	1.21	4.60	5.30	0.37	0.34	0.01	526.52	0.17	0.01
Pavers	2021	2021Pavers120	120	0.42	4.03	3.56	0.29	0.26	0.01	469.77	0.15	0.01
Pavers	2021	2021Pavers175	175	0.26	2.69	3.02	0.13	0.12	0.01	472.56	0.15	0.01
Pavers	2021	2021Pavers250	250	0.17	2.48	1.02	0.07	0.06	0.01	472.48	0.15	0.01
Pavers	2021	2021Pavers500	500	0.16	2.05	0.99	0.07	0.07	0.01	465.59	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Pavers	2022	2022Pavers25	25	1.09	4.42	5.11	0.33	0.30	0.01	526.90	0.17	0.01
Pavers	2022	2022Pavers50	50	1.09	4.42	5.11	0.33	0.30	0.01	526.90	0.17	0.01
Pavers	2022	2022Pavers120	120	0.37	3.66	3.53	0.25	0.23	0.01	470.19	0.15	0.01
Pavers	2022	2022Pavers175	175	0.22	2.18	2.99	0.10	0.10	0.01	472.76	0.15	0.01
Pavers	2022	2022Pavers250	250	0.14	1.90	1.01	0.06	0.05	0.01	472.37	0.15	0.01
Pavers	2022	2022Pavers500	500	0.15	1.81	0.98	0.06	0.06	0.01	466.00	0.15	0.01
Pavers	2023	2023Pavers25	25	1.01	4.28	5.01	0.30	0.28	0.01	526.86	0.17	0.01
Pavers	2023	2023Pavers50	50	1.01	4.28	5.01	0.30	0.28	0.01	526.86	0.17	0.01
Pavers	2023	2023Pavers120	120	0.35	3.43	3.51	0.23	0.21	0.01	470.08	0.15	0.01
Pavers	2023	2023Pavers175	175	0.20	1.96	2.99	0.09	0.09	0.01	472.72	0.15	0.01
Pavers	2023	2023Pavers250	250	0.13	1.61	1.01	0.05	0.04	0.01	472.61	0.15	0.01
Pavers	2023	2023Pavers500	500	0.15	1.77	0.99	0.06	0.06	0.01	466.00	0.15	0.01
Pavers	2024	2024Pavers25	25	0.95	4.20	4.96	0.28	0.26	0.01	526.86	0.17	0.01
Pavers	2024	2024Pavers50	50	0.95	4.20	4.96	0.28	0.26	0.01	526.86	0.17	0.01
Pavers	2024	2024Pavers120	120	0.34	3.28	3.51	0.21	0.20	0.01	470.23	0.15	0.01
Pavers	2024	2024Pavers175	175	0.19	1.81	3.00	0.08	0.08	0.01	472.66	0.15	0.01
Pavers	2024	2024Pavers250	250	0.12	1.34	1.01	0.04	0.04	0.01	473.24	0.15	0.01
Pavers	2024	2024Pavers500	500	0.14	1.55	0.99	0.05	0.05	0.01	467.17	0.15	0.01
Pavers	2025	2025Pavers25	25	0.92	4.13	4.94	0.27	0.24	0.01	526.85	0.17	0.01
Pavers	2025	2025Pavers50	50	0.92	4.13	4.94	0.27	0.24	0.01	526.85	0.17	0.01
Pavers	2025	2025Pavers120	120	0.31	3.07	3.49	0.19	0.18	0.01	469.90	0.15	0.01
Pavers	2025	2025Pavers175	175	0.18	1.64	3.01	0.08	0.07	0.01	472.49	0.15	0.01
Pavers	2025	2025Pavers250	250	0.11	1.03	1.00	0.03	0.03	0.01	473.48	0.15	0.01
Pavers	2025	2025Pavers500	500	0.12	1.13	0.97	0.04	0.04	0.01	465.88	0.15	0.01
Paving Equipment	2020	2020Paving Equipment25	25	0.62	3.95	4.22	0.22	0.20	0.01	520.12	0.17	0.01
Paving Equipment	2020	2020Paving Equipment50	50	0.62	3.95	4.22	0.22	0.20	0.01	520.12	0.17	0.01
Paving Equipment	2020	2020Paving Equipment120	120	0.40	3.78	3.58	0.26	0.24	0.01	473.32	0.15	0.01
Paving Equipment	2020	2020Paving Equipment175	175	0.25	2.55	3.02	0.13	0.12	0.01	470.74	0.15	0.01
Paving Equipment	2020	2020Paving Equipment250	250	0.24	3.22	1.25	0.11	0.10	0.01	472.15	0.15	0.01
Paving Equipment	2021	2021Paving Equipment25	25	0.59	3.88	4.21	0.20	0.18	0.01	520.40	0.17	0.01
Paving Equipment	2021	2021Paving Equipment50	50	0.59	3.88	4.21	0.20	0.18	0.01	520.40	0.17	0.01
Paving Equipment	2021	2021Paving Equipment120	120	0.36	3.45	3.55	0.22	0.20	0.01	473.22	0.15	0.01
Paving Equipment	2021	2021Paving Equipment175	175	0.23	2.32	3.03	0.11	0.11	0.01	470.65	0.15	0.01
Paving Equipment	2021	2021Paving Equipment250	250	0.21	2.58	1.21	0.09	0.09	0.01	472.15	0.15	0.01
Paving Equipment	2022	2022Paving Equipment25	25	0.57	3.84	4.24	0.19	0.17	0.01	520.66	0.17	0.01
Paving Equipment	2022	2022Paving Equipment50	50	0.57	3.84	4.24	0.19	0.17	0.01	520.66	0.17	0.01
Paving Equipment	2022	2022Paving Equipment120	120	0.30	3.00	3.50	0.17	0.16	0.01	473.45	0.15	0.01
Paving Equipment	2022	2022Paving Equipment175	175	0.21	2.07	3.04	0.10	0.09	0.01	470.66	0.15	0.01
Paving Equipment	2022	2022Paving Equipment250	250	0.20	2.23	1.20	0.08	0.08	0.01	472.17	0.15	0.01
Paving Equipment	2023	2023Paving Equipment25	25	0.54	3.77	4.24	0.17	0.16	0.01	521.11	0.17	0.01
Paving Equipment	2023	2023Paving Equipment50	50	0.54	3.77	4.24	0.17	0.16	0.01	521.11	0.17	0.01
Paving Equipment	2023	2023Paving Equipment120	120	0.28	2.84	3.50	0.15	0.14	0.01	473.43	0.15	0.01
Paving Equipment	2023	2023Paving Equipment175	175	0.20	1.91	3.05	0.09	0.09	0.01	470.66	0.15	0.01
Paving Equipment	2023	2023Paving Equipment250	250	0.18	1.88	1.17	0.07	0.07	0.01	472.17	0.15	0.01
Paving Equipment	2024	2024Paving Equipment25	25	0.52	3.74	4.27	0.16	0.15	0.01	521.06	0.17	0.01
Paving Equipment	2024	2024Paving Equipment50	50	0.52	3.74	4.27	0.16	0.15	0.01	521.06	0.17	0.01
Paving Equipment	2024	2024Paving Equipment120	120	0.26	2.67	3.50	0.14	0.13	0.01	473.17	0.15	0.01
Paving Equipment	2024	2024Paving Equipment175	175	0.20	1.79	3.07	0.09	0.08	0.01	470.66	0.15	0.01
Paving Equipment	2024	2024Paving Equipment250	250	0.14	1.30	1.11	0.05	0.04	0.01	472.21	0.15	0.01
Paving Equipment	2025	2025Paving Equipment25	25	0.48	3.63	4.20	0.14	0.13	0.01	521.00	0.17	0.01
Paving Equipment	2025	2025Paving Equipment50	50	0.48	3.63	4.20	0.14	0.13	0.01	521.00	0.17	0.01
Paving Equipment	2025	2025Paving Equipment120	120	0.24	2.50	3.48	0.12	0.11	0.01	473.42	0.15	0.01
Paving Equipment	2025	2025Paving Equipment175	175	0.18	1.51	3.04	0.08	0.07	0.01	470.48	0.15	0.01
Paving Equipment	2025	2025Paving Equipment250	250	0.13	1.11	1.12	0.04	0.04	0.01	472.23	0.15	0.01
Plate Compactors	2020	2020Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2021	2021Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2022	2022Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2023	2023Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2024	2024Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Plate Compactors	2025	2025Plate Compactors15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Pressure Washers	2020	2020Pressure Washers15	15	0.65	4.52	3.55	0.21	0.21	0.01	568.30	0.06	0.01
Pressure Washers	2020	2020Pressure Washers25	25	0.72	4.54	2.47	0.21	0.21	0.01	568.30	0.07	0.01
Pressure Washers	2020	2020Pressure Washers50	50	0.50	3.92	3.39	0.16	0.16	0.01	568.30	0.05	0.01
Pressure Washers	2020	2020Pressure Washers120	120	0.30	3.04	3.23	0.15	0.15	0.01	568.30	0.03	0.01
Pressure Washers	2020	2020Pressure Washers175	175	0.26	2.38	2.91	0.10	0.10	0.01	568.30	0.02	0.01
Pressure Washers	2020	2020Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01
Pressure Washers	2021	2021Pressure Washers15	15	0.63	4.44	3.53	0.20	0.20	0.01	568.30	0.06	0.01
Pressure Washers	2021	2021Pressure Washers25	25	0.71	4.50	2.45	0.20	0.20	0.01	568.30	0.06	0.01
Pressure Washers	2021	2021Pressure Washers50	50	0.44	3.77	3.33	0.14	0.14	0.01	568.30	0.04	0.01
Pressure Washers	2021	2021Pressure Washers120	120	0.26	2.77	3.21	0.13	0.13	0.01	568.30	0.02	0.01
Pressure Washers	2021	2021Pressure Washers175	175	0.24	2.12	2.91	0.09	0.09	0.01	568.30	0.02	0.01
Pressure Washers	2021	2021Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01
Pressure Washers	2022	2022Pressure Washers15	15	0.63	4.39	3.52	0.19	0.19	0.01	568.30	0.06	0.01
Pressure Washers	2022	2022Pressure Washers25	25	0.71	4.47	2.43	0.19	0.19	0.01	568.30	0.06	0.01
Pressure Washers	2022	2022Pressure Washers50	50	0.40	3.65	3.29	0.12	0.12	0.01	568.30	0.04	0.01
Pressure Washers	2022	2022Pressure Washers120	120	0.24	2.56	3.20	0.11	0.11	0.01	568.30	0.02	0.01
Pressure Washers	2022	2022Pressure Washers175	175	0.22	1.87	2.91	0.08	0.08	0.01	568.30	0.02	0.01
Pressure Washers	2022	2022Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01
Pressure Washers	2023	2023Pressure Washers15	15	0.62	4.35	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Pressure Washers	2023	2023Pressure Washers25	25	0.70	4.45	2.41	0.18	0.18	0.01	568.30	0.06	0.01
Pressure Washers	2023	2023Pressure Washers50	50	0.36	3.54	3.26	0.10	0.10	0.01	568.30	0.03	0.01
Pressure Washers	2023	2023Pressure Washers120	120	0.22	2.38	3.20	0.10	0.10	0.01	568.30	0.02	0.01
Pressure Washers	2023	2023Pressure Washers175	175	0.21	1.67	2.91	0.07	0.07	0.01	568.30	0.02	0.01
Pressure Washers	2023	2023Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Pressure Washers	2024	2024Pressure Washers15	15	0.61	4.31	3.50	0.18	0.18	0.01	568.30	0.06	0.01
Pressure Washers	2024	2024Pressure Washers25	25	0.70	4.43	2.39	0.18	0.18	0.01	568.30	0.06	0.01
Pressure Washers	2024	2024Pressure Washers50	50	0.33	3.44	3.23	0.09	0.09	0.01	568.30	0.03	0.01
Pressure Washers	2024	2024Pressure Washers120	120	0.20	2.23	3.19	0.08	0.08	0.01	568.30	0.02	0.01
Pressure Washers	2024	2024Pressure Washers175	175	0.19	1.48	2.91	0.06	0.06	0.01	568.30	0.02	0.01
Pressure Washers	2024	2024Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01
Pressure Washers	2025	2025Pressure Washers15	15	0.61	4.27	3.49	0.18	0.18	0.01	568.30	0.05	0.01
Pressure Washers	2025	2025Pressure Washers25	25	0.69	4.41	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Pressure Washers	2025	2025Pressure Washers50	50	0.31	3.34	3.21	0.08	0.08	0.01	568.30	0.03	0.01
Pressure Washers	2025	2025Pressure Washers120	120	0.19	2.10	3.19	0.07	0.07	0.01	568.30	0.02	0.01
Pressure Washers	2025	2025Pressure Washers175	175	0.18	1.31	2.91	0.05	0.05	0.01	568.30	0.02	0.01
Pressure Washers	2025	2025Pressure Washers250	250	0.10	0.27	0.99	0.01	0.01	0.01	568.30	0.01	0.01
Pumps	2020	2020Pumps15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps25	25	0.77	4.54	2.47	0.21	0.21	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps50	50	0.76	4.13	4.20	0.21	0.21	0.01	568.30	0.07	0.01
Pumps	2020	2020Pumps120	120	0.39	3.22	3.43	0.19	0.19	0.01	568.30	0.03	0.01
Pumps	2020	2020Pumps175	175	0.29	2.42	2.97	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2020	2020Pumps250	250	0.21	2.05	1.04	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps500	500	0.20	1.84	1.02	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps750	750	0.21	1.88	1.02	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2020	2020Pumps9999	9999	0.26	3.65	1.10	0.08	0.08	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Pumps	2021	2021Pumps25	25	0.75	4.50	2.45	0.20	0.20	0.01	568.30	0.07	0.01
Pumps	2021	2021Pumps50	50	0.67	3.97	4.10	0.18	0.18	0.01	568.30	0.06	0.01
Pumps	2021	2021Pumps120	120	0.35	2.93	3.41	0.16	0.16	0.01	568.30	0.03	0.01
Pumps	2021	2021Pumps175	175	0.26	2.10	2.97	0.10	0.10	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps250	250	0.20	1.76	1.03	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps500	500	0.19	1.58	1.01	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps750	750	0.19	1.62	1.01	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2021	2021Pumps9999	9999	0.23	3.41	1.07	0.07	0.07	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Pumps	2022	2022Pumps25	25	0.74	4.47	2.43	0.19	0.19	0.01	568.30	0.07	0.01
Pumps	2022	2022Pumps50	50	0.61	3.85	4.05	0.15	0.15	0.01	568.30	0.06	0.01
Pumps	2022	2022Pumps120	120	0.32	2.71	3.40	0.14	0.14	0.01	568.30	0.03	0.01
Pumps	2022	2022Pumps175	175	0.24	1.86	2.97	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps250	250	0.19	1.53	1.03	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps500	500	0.18	1.40	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps750	750	0.18	1.43	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Pumps	2022	2022Pumps9999	9999	0.22	3.24	1.06	0.07	0.07	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2023	2023Pumps25	25	0.73	4.45	2.41	0.19	0.19	0.01	568.30	0.07	0.01
Pumps	2023	2023Pumps50	50	0.57	3.73	4.01	0.13	0.13	0.01	568.30	0.05	0.01
Pumps	2023	2023Pumps120	120	0.30	2.51	3.40	0.12	0.12	0.01	568.30	0.03	0.01
Pumps	2023	2023Pumps175	175	0.23	1.66	2.97	0.08	0.08	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps250	250	0.18	1.35	1.02	0.04	0.04	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps500	500	0.17	1.25	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps750	750	0.17	1.27	1.00	0.04	0.04	0.01	568.30	0.02	0.01
Pumps	2023	2023Pumps9999	9999	0.21	3.09	1.04	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Pumps	2024	2024Pumps25	25	0.72	4.43	2.39	0.18	0.18	0.01	568.30	0.06	0.01
Pumps	2024	2024Pumps50	50	0.52	3.63	3.97	0.11	0.11	0.01	568.30	0.05	0.01
Pumps	2024	2024Pumps120	120	0.28	2.35	3.39	0.11	0.11	0.01	568.30	0.03	0.01
Pumps	2024	2024Pumps175	175	0.21	1.49	2.97	0.07	0.07	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps250	250	0.17	1.19	1.02	0.03	0.03	0.01	568.30	0.02	0.01
Pumps	2024	2024Pumps500	500	0.16	1.10	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Pumps	2024	2024Pumps750	750	0.16	1.12	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Pumps	2024	2024Pumps9999	9999	0.20	2.96	1.03	0.05	0.05	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Pumps	2025	2025Pumps25	25	0.71	4.41	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Pumps	2025	2025Pumps50	50	0.49	3.53	3.94	0.10	0.10	0.01	568.30	0.04	0.01
Pumps	2025	2025Pumps120	120	0.26	2.21	3.39	0.09	0.09	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps175	175	0.20	1.32	2.97	0.06	0.06	0.01	568.30	0.02	0.01
Pumps	2025	2025Pumps250	250	0.16	1.04	1.02	0.03	0.03	0.01	568.30	0.01	0.01
Pumps	2025	2025Pumps500	500	0.16	0.96	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Pumps	2025	2025Pumps750	750	0.16	0.98	0.99	0.03	0.03	0.01	568.30	0.01	0.01
Pumps	2025	2025Pumps9999	9999	0.19	2.84	1.02	0.05	0.05	0.01	568.30	0.02	0.01
Rollers	2020	2020Rollers15	15	0.93	4.53	4.73	0.33	0.30	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers25	25	0.93	4.53	4.73	0.33	0.30	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers50	50	0.93	4.53	4.73	0.33	0.30	0.01	525.88	0.17	0.01
Rollers	2020	2020Rollers120	120	0.39	3.88	3.53	0.25	0.23	0.01	473.86	0.15	0.01
Rollers	2020	2020Rollers175	175	0.22	2.45	2.93	0.11	0.10	0.01	471.92	0.15	0.01
Rollers	2020	2020Rollers250	250	0.21	2.75	1.25	0.09	0.08	0.01	473.37	0.15	0.01
Rollers	2020	2020Rollers500	500	0.24	2.83	2.11	0.11	0.10	0.01	479.33	0.16	0.01
Rollers	2021	2021Rollers15	15	0.85	4.35	4.60	0.29	0.27	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers25	25	0.85	4.35	4.60	0.29	0.27	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers50	50	0.85	4.35	4.60	0.29	0.27	0.01	525.79	0.17	0.01
Rollers	2021	2021Rollers120	120	0.35	3.59	3.51	0.22	0.20	0.01	473.90	0.15	0.01
Rollers	2021	2021Rollers175	175	0.19	2.12	2.93	0.10	0.09	0.01	471.98	0.15	0.01
Rollers	2021	2021Rollers250	250	0.20	2.49	1.23	0.08	0.08	0.01	473.47	0.15	0.01
Rollers	2021	2021Rollers500	500	0.22	2.59	1.95	0.10	0.09	0.01	479.33	0.16	0.01
Rollers	2022	2022Rollers15	15	0.74	4.13	4.40	0.25	0.23	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers25	25	0.74	4.13	4.40	0.25	0.23	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers50	50	0.74	4.13	4.40	0.25	0.23	0.01	525.69	0.17	0.01
Rollers	2022	2022Rollers120	120	0.31	3.22	3.47	0.19	0.17	0.01	473.93	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Rollers	2022	2022Rollers175	175	0.16	1.71	2.91	0.08	0.07	0.01	471.95	0.15	0.01
Rollers	2022	2022Rollers250	250	0.19	2.21	1.23	0.08	0.07	0.01	473.51	0.15	0.01
Rollers	2022	2022Rollers500	500	0.22	2.46	1.95	0.10	0.09	0.01	478.98	0.16	0.01
Rollers	2023	2023Rollers15	15	0.66	3.92	4.25	0.21	0.20	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers25	25	0.66	3.92	4.25	0.21	0.20	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers50	50	0.66	3.92	4.25	0.21	0.20	0.01	525.86	0.17	0.01
Rollers	2023	2023Rollers120	120	0.29	3.00	3.45	0.17	0.15	0.01	473.94	0.15	0.01
Rollers	2023	2023Rollers175	175	0.15	1.48	2.91	0.07	0.06	0.01	471.94	0.15	0.01
Rollers	2023	2023Rollers250	250	0.19	2.17	1.23	0.08	0.07	0.01	473.52	0.15	0.01
Rollers	2023	2023Rollers500	500	0.21	2.29	1.96	0.09	0.09	0.01	478.30	0.16	0.01
Rollers	2024	2024Rollers15	15	0.62	3.82	4.21	0.19	0.18	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers25	25	0.62	3.82	4.21	0.19	0.18	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers50	50	0.62	3.82	4.21	0.19	0.18	0.01	525.96	0.17	0.01
Rollers	2024	2024Rollers120	120	0.27	2.84	3.45	0.15	0.14	0.01	474.01	0.15	0.01
Rollers	2024	2024Rollers175	175	0.14	1.32	2.91	0.06	0.06	0.01	472.01	0.15	0.01
Rollers	2024	2024Rollers250	250	0.18	1.98	1.21	0.07	0.06	0.01	473.51	0.15	0.01
Rollers	2024	2024Rollers500	500	0.21	2.22	1.96	0.09	0.08	0.01	477.90	0.16	0.01
Rollers	2025	2025Rollers15	15	0.57	3.69	4.13	0.17	0.15	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers25	25	0.57	3.69	4.13	0.17	0.15	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers50	50	0.57	3.69	4.13	0.17	0.15	0.01	526.14	0.17	0.01
Rollers	2025	2025Rollers120	120	0.26	2.69	3.44	0.14	0.13	0.01	473.85	0.15	0.01
Rollers	2025	2025Rollers175	175	0.13	1.10	2.91	0.05	0.05	0.01	471.97	0.15	0.01
Rollers	2025	2025Rollers250	250	0.17	1.78	1.21	0.07	0.06	0.01	473.68	0.15	0.01
Rollers	2025	2025Rollers500	500	0.21	2.20	1.97	0.09	0.08	0.01	477.57	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts50	50	1.00	4.49	4.69	0.32	0.29	0.01	525.62	0.17	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts120	120	0.19	2.45	3.26	0.10	0.09	0.01	472.98	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts175	175	0.14	1.87	2.84	0.07	0.06	0.01	471.72	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts250	250	0.11	1.61	0.98	0.04	0.03	0.01	472.57	0.15	0.01
Rough Terrain Forklifts	2020	2020Rough Terrain Forklifts500	500	0.09	1.30	0.94	0.03	0.03	0.01	465.77	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts50	50	0.97	4.41	4.66	0.30	0.28	0.01	525.38	0.17	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts120	120	0.18	2.29	3.25	0.09	0.08	0.01	473.11	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts175	175	0.13	1.62	2.84	0.06	0.06	0.01	471.76	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts250	250	0.12	1.61	0.98	0.04	0.03	0.01	472.55	0.15	0.01
Rough Terrain Forklifts	2021	2021Rough Terrain Forklifts500	500	0.09	1.30	0.95	0.03	0.03	0.01	465.74	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts50	50	0.79	4.04	4.30	0.24	0.22	0.01	525.02	0.17	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts120	120	0.16	2.10	3.24	0.07	0.07	0.01	473.09	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts175	175	0.12	1.40	2.84	0.05	0.05	0.01	471.68	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts250	250	0.12	1.62	0.99	0.04	0.03	0.01	472.54	0.15	0.01
Rough Terrain Forklifts	2022	2022Rough Terrain Forklifts500	500	0.07	0.56	0.94	0.01	0.01	0.01	466.56	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts50	50	0.69	3.85	4.13	0.20	0.19	0.01	524.80	0.17	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts120	120	0.15	1.98	3.24	0.06	0.06	0.01	473.16	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts175	175	0.11	1.22	2.84	0.04	0.04	0.01	471.62	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts250	250	0.12	1.47	0.99	0.03	0.03	0.01	472.78	0.15	0.01
Rough Terrain Forklifts	2023	2023Rough Terrain Forklifts500	500	0.07	0.56	0.94	0.01	0.01	0.01	466.55	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts50	50	0.57	3.65	3.92	0.17	0.15	0.01	524.92	0.17	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts120	120	0.15	1.91	3.24	0.06	0.05	0.01	473.06	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts175	175	0.10	1.04	2.83	0.04	0.04	0.01	471.53	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts250	250	0.12	1.48	1.00	0.04	0.03	0.01	472.85	0.15	0.01
Rough Terrain Forklifts	2024	2024Rough Terrain Forklifts500	500	0.07	0.48	0.94	0.01	0.01	0.01	466.55	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts50	50	0.46	3.48	3.74	0.13	0.12	0.01	525.03	0.17	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts120	120	0.14	1.82	3.24	0.05	0.05	0.01	473.04	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts175	175	0.09	0.79	2.82	0.03	0.03	0.01	471.47	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts250	250	0.12	1.49	1.00	0.04	0.03	0.01	472.93	0.15	0.01
Rough Terrain Forklifts	2025	2025Rough Terrain Forklifts500	500	0.07	0.48	0.94	0.01	0.01	0.01	466.54	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers175	175	0.73	7.19	3.89	0.41	0.38	0.01	473.01	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers250	250	0.62	6.50	2.37	0.32	0.29	0.01	474.79	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers500	500	0.54	5.64	4.41	0.26	0.24	0.01	479.76	0.16	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers750	750	0.46	6.12	2.60	0.22	0.20	0.01	473.06	0.15	0.01
Rubber Tired Dozers	2020	2020Rubber Tired Dozers1000	1000	0.52	5.31	2.16	0.16	0.16	0.01	568.30	0.05	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers175	175	0.69	6.79	3.85	0.39	0.36	0.01	472.98	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers250	250	0.60	6.30	2.32	0.31	0.28	0.01	474.80	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers500	500	0.49	5.08	4.04	0.23	0.21	0.01	478.99	0.16	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers750	750	0.46	6.12	2.60	0.22	0.20	0.01	473.05	0.15	0.01
Rubber Tired Dozers	2021	2021Rubber Tired Dozers1000	1000	0.50	5.10	2.06	0.15	0.15	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers175	175	0.60	5.81	3.75	0.33	0.30	0.01	473.91	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers250	250	0.48	5.05	2.06	0.24	0.22	0.01	474.62	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers500	500	0.48	4.81	3.89	0.22	0.20	0.01	479.31	0.16	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers750	750	0.46	6.12	2.61	0.22	0.20	0.01	473.04	0.15	0.01
Rubber Tired Dozers	2022	2022Rubber Tired Dozers1000	1000	0.48	4.90	1.96	0.14	0.14	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers175	175	0.59	5.66	3.77	0.32	0.29	0.01	473.90	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers250	250	0.39	4.09	1.78	0.18	0.17	0.01	474.60	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers500	500	0.45	4.41	3.69	0.20	0.19	0.01	479.47	0.16	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers750	750	0.42	5.33	2.59	0.20	0.18	0.01	473.02	0.15	0.01
Rubber Tired Dozers	2023	2023Rubber Tired Dozers1000	1000	0.45	4.71	1.87	0.13	0.13	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers175	175	0.53	5.01	3.70	0.28	0.26	0.01	473.51	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers250	250	0.40	4.09	1.80	0.18	0.17	0.01	474.59	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers500	500	0.42	4.03	3.46	0.18	0.17	0.01	479.39	0.16	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers750	750	0.43	5.33	2.60	0.20	0.18	0.01	473.01	0.15	0.01
Rubber Tired Dozers	2024	2024Rubber Tired Dozers1000	1000	0.43	4.53	1.80	0.12	0.12	0.01	568.30	0.04	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers175	175	0.46	4.23	3.61	0.23	0.21	0.01	474.10	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers250	250	0.37	3.81	1.72	0.17	0.15	0.01	474.57	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers500	500	0.37	3.37	2.96	0.15	0.14	0.01	479.09	0.16	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers750	750	0.43	5.33	2.60	0.20	0.18	0.01	473.00	0.15	0.01
Rubber Tired Dozers	2025	2025Rubber Tired Dozers1000	1000	0.41	4.37	1.73	0.12	0.12	0.01	568.30	0.04	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Rubber Tired Loaders	2020	2020Rubber Tired Loaders25	25	1.48	5.25	6.77	0.47	0.44	0.01	524.70	0.17	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders50	50	1.48	5.25	6.77	0.47	0.44	0.01	524.70	0.17	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders120	120	0.56	4.69	3.95	0.37	0.34	0.01	465.67	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders175	175	0.38	3.52	3.37	0.19	0.18	0.01	471.21	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders250	250	0.29	3.42	1.27	0.11	0.10	0.01	469.51	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders500	500	0.29	3.02	1.63	0.11	0.10	0.01	466.78	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders750	750	0.28	2.77	1.40	0.11	0.10	0.01	462.19	0.15	0.01
Rubber Tired Loaders	2020	2020Rubber Tired Loaders1000	1000	0.31	5.25	1.20	0.14	0.13	0.01	469.94	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders25	25	1.33	4.97	6.45	0.41	0.38	0.01	524.55	0.17	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders50	50	1.33	4.97	6.45	0.41	0.38	0.01	524.55	0.17	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders120	120	0.50	4.21	3.89	0.32	0.29	0.01	466.42	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders175	175	0.35	3.12	3.35	0.17	0.16	0.01	471.08	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders250	250	0.27	3.00	1.24	0.10	0.09	0.01	469.56	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders500	500	0.26	2.61	1.53	0.10	0.09	0.01	467.93	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders750	750	0.27	2.64	1.40	0.10	0.09	0.01	462.05	0.15	0.01
Rubber Tired Loaders	2021	2021Rubber Tired Loaders1000	1000	0.29	4.97	1.21	0.13	0.12	0.01	471.26	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders25	25	1.18	4.75	6.20	0.35	0.33	0.01	524.79	0.17	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders50	50	1.18	4.75	6.20	0.35	0.33	0.01	524.79	0.17	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders120	120	0.44	3.77	3.84	0.27	0.25	0.01	466.49	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders175	175	0.30	2.52	3.30	0.14	0.13	0.01	470.93	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders250	250	0.23	2.35	1.19	0.08	0.07	0.01	469.90	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders500	500	0.24	2.18	1.44	0.08	0.08	0.01	468.13	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders750	750	0.23	2.10	1.32	0.08	0.07	0.01	463.82	0.15	0.01
Rubber Tired Loaders	2022	2022Rubber Tired Loaders1000	1000	0.19	3.62	1.16	0.07	0.07	0.01	472.86	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders25	25	1.05	4.52	5.97	0.30	0.28	0.01	524.30	0.17	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders50	50	1.05	4.52	5.97	0.30	0.28	0.01	524.30	0.17	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders120	120	0.41	3.51	3.83	0.24	0.22	0.01	466.56	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders175	175	0.27	2.20	3.29	0.12	0.11	0.01	470.66	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders250	250	0.21	2.06	1.17	0.07	0.06	0.01	469.82	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders500	500	0.22	1.87	1.38	0.07	0.06	0.01	468.47	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders750	750	0.23	1.93	1.32	0.07	0.07	0.01	464.56	0.15	0.01
Rubber Tired Loaders	2023	2023Rubber Tired Loaders1000	1000	0.19	3.53	1.17	0.07	0.07	0.01	472.30	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders25	25	1.01	4.47	5.99	0.29	0.26	0.01	524.23	0.17	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders50	50	1.01	4.47	5.99	0.29	0.26	0.01	524.23	0.17	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders120	120	0.40	3.34	3.83	0.22	0.20	0.01	466.81	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders175	175	0.25	1.88	3.29	0.10	0.09	0.01	470.36	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders250	250	0.20	1.81	1.16	0.06	0.06	0.01	469.79	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders500	500	0.21	1.70	1.35	0.06	0.06	0.01	468.51	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders750	750	0.23	1.88	1.33	0.07	0.07	0.01	464.87	0.15	0.01
Rubber Tired Loaders	2024	2024Rubber Tired Loaders1000	1000	0.20	3.54	1.19	0.07	0.07	0.01	472.35	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders25	25	0.96	4.35	5.94	0.26	0.24	0.01	523.91	0.17	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders50	50	0.96	4.35	5.94	0.26	0.24	0.01	523.91	0.17	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders120	120	0.35	2.97	3.79	0.18	0.17	0.01	466.90	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders175	175	0.22	1.59	3.28	0.08	0.08	0.01	470.46	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders250	250	0.18	1.44	1.14	0.05	0.05	0.01	469.87	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders500	500	0.19	1.43	1.28	0.05	0.05	0.01	469.14	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders750	750	0.21	1.65	1.33	0.06	0.06	0.01	465.05	0.15	0.01
Rubber Tired Loaders	2025	2025Rubber Tired Loaders1000	1000	0.17	3.09	1.12	0.05	0.05	0.01	472.46	0.15	0.01
Scrapers	2020	2020Scrapers120	120	0.70	6.68	4.20	0.51	0.47	0.01	483.75	0.16	0.01
Scrapers	2020	2020Scrapers175	175	0.48	4.87	3.50	0.26	0.24	0.01	478.61	0.16	0.01
Scrapers	2020	2020Scrapers250	250	0.45	5.09	2.06	0.22	0.21	0.01	468.99	0.15	0.01
Scrapers	2020	2020Scrapers500	500	0.32	3.78	2.40	0.15	0.14	0.01	472.18	0.15	0.01
Scrapers	2020	2020Scrapers750	750	0.26	3.13	1.73	0.11	0.10	0.01	471.78	0.15	0.01
Scrapers	2021	2021Scrapers120	120	0.70	6.66	4.22	0.51	0.47	0.01	483.71	0.16	0.01
Scrapers	2021	2021Scrapers175	175	0.43	4.34	3.46	0.23	0.21	0.01	478.65	0.16	0.01
Scrapers	2021	2021Scrapers250	250	0.39	4.37	1.88	0.19	0.17	0.01	469.13	0.15	0.01
Scrapers	2021	2021Scrapers500	500	0.30	3.44	2.25	0.13	0.12	0.01	472.46	0.15	0.01
Scrapers	2021	2021Scrapers750	750	0.25	2.89	1.66	0.11	0.10	0.01	471.79	0.15	0.01
Scrapers	2022	2022Scrapers120	120	0.68	6.46	4.20	0.49	0.45	0.01	483.45	0.16	0.01
Scrapers	2022	2022Scrapers175	175	0.39	3.83	3.42	0.20	0.19	0.01	478.74	0.16	0.01
Scrapers	2022	2022Scrapers250	250	0.34	3.67	1.74	0.16	0.15	0.01	469.27	0.15	0.01
Scrapers	2022	2022Scrapers500	500	0.26	2.88	2.05	0.11	0.10	0.01	473.23	0.15	0.01
Scrapers	2022	2022Scrapers750	750	0.22	2.48	1.51	0.09	0.08	0.01	471.28	0.15	0.01
Scrapers	2023	2023Scrapers120	120	0.63	6.03	4.14	0.46	0.42	0.01	483.03	0.16	0.01
Scrapers	2023	2023Scrapers175	175	0.36	3.48	3.40	0.18	0.17	0.01	478.68	0.16	0.01
Scrapers	2023	2023Scrapers250	250	0.32	3.28	1.68	0.14	0.13	0.01	469.56	0.15	0.01
Scrapers	2023	2023Scrapers500	500	0.25	2.67	1.98	0.11	0.10	0.01	473.18	0.15	0.01
Scrapers	2023	2023Scrapers750	750	0.22	2.39	1.51	0.09	0.08	0.01	471.30	0.15	0.01
Scrapers	2024	2024Scrapers120	120	0.58	5.63	4.09	0.41	0.38	0.01	482.70	0.16	0.01
Scrapers	2024	2024Scrapers175	175	0.34	3.16	3.37	0.17	0.15	0.01	478.81	0.16	0.01
Scrapers	2024	2024Scrapers250	250	0.30	3.01	1.63	0.13	0.12	0.01	469.35	0.15	0.01
Scrapers	2024	2024Scrapers500	500	0.25	2.48	1.92	0.10	0.09	0.01	472.85	0.15	0.01
Scrapers	2024	2024Scrapers750	750	0.21	2.19	1.46	0.08	0.07	0.01	471.43	0.15	0.01
Scrapers	2025	2025Scrapers120	120	0.57	5.50	4.09	0.41	0.37	0.01	482.36	0.16	0.01
Scrapers	2025	2025Scrapers175	175	0.29	2.63	3.32	0.14	0.13	0.01	478.95	0.16	0.01
Scrapers	2025	2025Scrapers250	250	0.29	2.80	1.60	0.13	0.12	0.01	469.45	0.15	0.01
Scrapers	2025	2025Scrapers500	500	0.22	2.05	1.73	0.08	0.07	0.01	472.54	0.15	0.01
Scrapers	2025	2025Scrapers750	750	0.18	1.71	1.34	0.06	0.06	0.01	472.12	0.15	0.01
Signal Boards	2020	2020Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2020	2020Signal Boards50	50	0.79	4.13	4.45	0.21	0.21	0.01	568.30	0.07	0.01
Signal Boards	2020	2020Signal Boards120	120	0.40	3.13	3.50	0.19	0.19	0.01	568.30	0.04	0.01
Signal Boards	2020	2020Signal Boards175	175	0.30	2.31	3.04	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2020	2020Signal Boards250	250	0.27	2.35	1.28	0.07	0.07	0.01	686.70	0.02	0.02
Signal Boards	2021	2021Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Signal Boards	2021	2021Signal Boards50	50	0.71	4.00	4.38	0.18	0.18	0.01	568.30	0.06	0.01
Signal Boards	2021	2021Signal Boards120	120	0.36	2.89	3.49	0.16	0.16	0.01	568.30	0.03	0.01
Signal Boards	2021	2021Signal Boards175	175	0.28	2.04	3.04	0.10	0.10	0.01	568.30	0.03	0.01
Signal Boards	2021	2021Signal Boards250	250	0.26	2.05	1.27	0.06	0.06	0.01	686.70	0.02	0.02
Signal Boards	2022	2022Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2022	2022Signal Boards50	50	0.66	3.88	4.33	0.15	0.15	0.01	568.30	0.06	0.01
Signal Boards	2022	2022Signal Boards120	120	0.34	2.67	3.48	0.14	0.14	0.01	568.30	0.03	0.01
Signal Boards	2022	2022Signal Boards175	175	0.26	1.80	3.04	0.09	0.09	0.01	568.30	0.02	0.01
Signal Boards	2022	2022Signal Boards250	250	0.25	1.78	1.27	0.06	0.06	0.01	686.70	0.02	0.02
Signal Boards	2023	2023Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2023	2023Signal Boards50	50	0.60	3.77	4.28	0.13	0.13	0.01	568.30	0.05	0.01
Signal Boards	2023	2023Signal Boards120	120	0.32	2.47	3.48	0.12	0.12	0.01	568.30	0.03	0.01
Signal Boards	2023	2023Signal Boards175	175	0.24	1.60	3.05	0.08	0.08	0.01	568.30	0.02	0.01
Signal Boards	2023	2023Signal Boards250	250	0.24	1.56	1.26	0.05	0.05	0.01	686.70	0.02	0.02
Signal Boards	2024	2024Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2024	2024Signal Boards50	50	0.56	3.66	4.25	0.11	0.11	0.01	568.30	0.05	0.01
Signal Boards	2024	2024Signal Boards120	120	0.30	2.32	3.47	0.11	0.11	0.01	568.30	0.03	0.01
Signal Boards	2024	2024Signal Boards175	175	0.23	1.43	3.05	0.07	0.07	0.01	568.30	0.02	0.01
Signal Boards	2024	2024Signal Boards250	250	0.22	1.37	1.26	0.04	0.04	0.01	686.70	0.02	0.02
Signal Boards	2025	2025Signal Boards15	15	0.66	4.14	3.47	0.16	0.16	0.01	568.30	0.06	0.01
Signal Boards	2025	2025Signal Boards50	50	0.52	3.56	4.22	0.10	0.10	0.01	568.30	0.05	0.01
Signal Boards	2025	2025Signal Boards120	120	0.28	2.18	3.47	0.09	0.09	0.01	568.30	0.03	0.01
Signal Boards	2025	2025Signal Boards175	175	0.22	1.26	3.05	0.06	0.06	0.01	568.30	0.02	0.01
Signal Boards	2025	2025Signal Boards250	250	0.21	1.19	1.26	0.04	0.04	0.01	686.70	0.02	0.02
Skid Steer Loaders	2020	2020Skid Steer Loaders25	25	0.44	3.69	3.76	0.15	0.13	0.01	527.76	0.17	0.01
Skid Steer Loaders	2020	2020Skid Steer Loaders50	50	0.44	3.69	3.76	0.15	0.13	0.01	527.76	0.17	0.01
Skid Steer Loaders	2020	2020Skid Steer Loaders120	120	0.19	2.50	3.28	0.11	0.10	0.01	471.91	0.15	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders25	25	0.41	3.57	3.73	0.13	0.12	0.01	527.45	0.17	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders50	50	0.41	3.57	3.73	0.13	0.12	0.01	527.45	0.17	0.01
Skid Steer Loaders	2021	2021Skid Steer Loaders120	120	0.18	2.37	3.28	0.10	0.09	0.01	471.98	0.15	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders25	25	0.37	3.43	3.66	0.10	0.10	0.01	527.27	0.17	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders50	50	0.37	3.43	3.66	0.10	0.10	0.01	527.27	0.17	0.01
Skid Steer Loaders	2022	2022Skid Steer Loaders120	120	0.16	2.19	3.27	0.08	0.08	0.01	472.43	0.15	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders25	25	0.35	3.37	3.65	0.09	0.09	0.01	527.42	0.17	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders50	50	0.35	3.37	3.65	0.09	0.09	0.01	527.42	0.17	0.01
Skid Steer Loaders	2023	2023Skid Steer Loaders120	120	0.15	2.04	3.27	0.07	0.06	0.01	472.66	0.15	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders25	25	0.35	3.35	3.67	0.09	0.08	0.01	527.80	0.17	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders50	50	0.35	3.35	3.67	0.09	0.08	0.01	527.80	0.17	0.01
Skid Steer Loaders	2024	2024Skid Steer Loaders120	120	0.15	1.95	3.26	0.06	0.06	0.01	472.85	0.15	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders25	25	0.34	3.31	3.66	0.08	0.08	0.01	527.86	0.17	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders50	50	0.34	3.31	3.66	0.08	0.08	0.01	527.86	0.17	0.01
Skid Steer Loaders	2025	2025Skid Steer Loaders120	120	0.14	1.87	3.25	0.06	0.05	0.01	472.63	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment50	50	0.54	4.24	3.93	0.22	0.20	0.01	535.53	0.17	0.01
Surfacing Equipment	2020	2020Surfacing Equipment120	120	0.33	3.61	3.44	0.21	0.19	0.01	473.82	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment175	175	0.31	3.67	2.93	0.18	0.16	0.01	469.21	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment250	250	0.21	3.22	1.22	0.10	0.09	0.01	476.43	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment500	500	0.15	1.84	1.22	0.07	0.06	0.01	471.63	0.15	0.01
Surfacing Equipment	2020	2020Surfacing Equipment750	750	0.14	2.09	1.00	0.07	0.07	0.01	469.63	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment50	50	0.51	4.19	3.93	0.20	0.19	0.01	535.78	0.17	0.01
Surfacing Equipment	2021	2021Surfacing Equipment120	120	0.31	3.46	3.44	0.19	0.18	0.01	474.09	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment175	175	0.26	3.10	2.92	0.15	0.13	0.01	469.17	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment250	250	0.21	2.99	1.22	0.09	0.09	0.01	476.80	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment500	500	0.14	1.75	1.20	0.06	0.06	0.01	471.75	0.15	0.01
Surfacing Equipment	2021	2021Surfacing Equipment750	750	0.13	1.60	0.99	0.06	0.06	0.01	470.41	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment50	50	0.43	3.91	3.77	0.15	0.14	0.01	535.84	0.17	0.01
Surfacing Equipment	2022	2022Surfacing Equipment120	120	0.29	3.25	3.41	0.18	0.16	0.01	473.64	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment175	175	0.24	2.70	2.91	0.13	0.12	0.01	469.13	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment250	250	0.20	2.67	1.22	0.09	0.08	0.01	476.95	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment500	500	0.13	1.56	1.16	0.06	0.05	0.01	470.52	0.15	0.01
Surfacing Equipment	2022	2022Surfacing Equipment750	750	0.12	1.36	0.99	0.05	0.05	0.01	470.40	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment50	50	0.44	3.92	3.83	0.16	0.14	0.01	535.93	0.17	0.01
Surfacing Equipment	2023	2023Surfacing Equipment120	120	0.27	3.06	3.40	0.16	0.14	0.01	474.47	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment175	175	0.22	2.46	2.91	0.12	0.11	0.01	470.01	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment250	250	0.19	2.50	1.22	0.08	0.08	0.01	476.96	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment500	500	0.13	1.48	1.16	0.06	0.05	0.01	470.37	0.15	0.01
Surfacing Equipment	2023	2023Surfacing Equipment750	750	0.10	1.08	0.99	0.04	0.04	0.01	472.45	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment50	50	0.33	3.72	3.66	0.12	0.11	0.01	536.03	0.17	0.01
Surfacing Equipment	2024	2024Surfacing Equipment120	120	0.25	2.88	3.39	0.14	0.13	0.01	475.38	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment175	175	0.23	2.46	2.93	0.12	0.11	0.01	470.08	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment250	250	0.18	2.24	1.18	0.07	0.07	0.01	477.10	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment500	500	0.13	1.48	1.17	0.06	0.05	0.01	470.25	0.15	0.01
Surfacing Equipment	2024	2024Surfacing Equipment750	750	0.09	0.95	0.98	0.03	0.03	0.01	472.98	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment50	50	0.24	3.58	3.54	0.08	0.08	0.01	536.14	0.17	0.01
Surfacing Equipment	2025	2025Surfacing Equipment120	120	0.23	2.66	3.39	0.12	0.11	0.01	476.77	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment175	175	0.19	2.00	2.93	0.09	0.09	0.01	471.04	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment250	250	0.15	1.75	1.14	0.06	0.05	0.01	477.11	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment500	500	0.13	1.33	1.17	0.05	0.05	0.01	470.28	0.15	0.01
Surfacing Equipment	2025	2025Surfacing Equipment750	750	0.09	0.77	0.98	0.03	0.03	0.01	470.55	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers15	15	1.34	5.10	6.16	0.46	0.43	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers25	25	1.34	5.10	6.16	0.46	0.43	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers50	50	1.34	5.10	6.16	0.46	0.43	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers120	120	0.52	4.48	3.83	0.36	0.33	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers175	175	0.46	4.61	3.36	0.24	0.22	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2020	2020Sweepers/Scrubbers250	250	0.21	2.49	1.14	0.08	0.07	0.01	470.13	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers15	15	1.22	4.85	5.90	0.41	0.38	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers25	25	1.22	4.85	5.90	0.41	0.38	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers50	50	1.22	4.85	5.90	0.41	0.38	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers120	120	0.44	3.96	3.76	0.29	0.27	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers175	175	0.39	3.71	3.25	0.19	0.17	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2021	2021Sweepers/Scrubbers250	250	0.16	1.76	1.11	0.06	0.05	0.01	470.13	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers15	15	1.01	4.49	5.45	0.34	0.31	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers25	25	1.01	4.49	5.45	0.34	0.31	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers50	50	1.01	4.49	5.45	0.34	0.31	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers120	120	0.37	3.47	3.69	0.23	0.21	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers175	175	0.32	3.00	3.22	0.15	0.13	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2022	2022Sweepers/Scrubbers250	250	0.15	1.60	1.10	0.05	0.05	0.01	470.13	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers15	15	0.76	4.13	4.97	0.25	0.23	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers25	25	0.76	4.13	4.97	0.25	0.23	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers50	50	0.76	4.13	4.97	0.25	0.23	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers120	120	0.35	3.29	3.69	0.21	0.19	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers175	175	0.29	2.61	3.22	0.13	0.12	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2023	2023Sweepers/Scrubbers250	250	0.16	1.61	1.11	0.05	0.05	0.01	470.13	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers15	15	0.75	4.08	5.00	0.24	0.22	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers25	25	0.75	4.08	5.00	0.24	0.22	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers50	50	0.75	4.08	5.00	0.24	0.22	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers120	120	0.33	3.10	3.69	0.19	0.17	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers175	175	0.27	2.25	3.23	0.11	0.10	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2024	2024Sweepers/Scrubbers250	250	0.16	1.61	1.13	0.05	0.05	0.01	470.13	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers15	15	0.62	3.86	4.77	0.19	0.18	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers25	25	0.62	3.86	4.77	0.19	0.18	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers50	50	0.62	3.86	4.77	0.19	0.18	0.01	525.33	0.17	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers120	120	0.30	2.82	3.66	0.16	0.15	0.01	474.12	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers175	175	0.21	1.64	3.20	0.07	0.07	0.01	473.12	0.15	0.01
Sweepers/Scrubbers	2025	2025Sweepers/Scrubbers250	250	0.17	1.62	1.14	0.05	0.05	0.01	470.13	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes25	25	0.83	4.40	5.03	0.29	0.27	0.01	515.87	0.17	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes50	50	0.83	4.40	5.03	0.29	0.27	0.01	515.87	0.17	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes120	120	0.33	3.33	3.60	0.21	0.19	0.01	475.15	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes175	175	0.25	2.41	3.11	0.12	0.11	0.01	467.51	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes250	250	0.23	2.74	1.20	0.09	0.08	0.01	470.50	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes500	500	0.19	2.08	1.36	0.07	0.07	0.01	468.24	0.15	0.01
Tractors/Loaders/Backhoes	2020	2020Tractors/Loaders/Backhoes750	750	0.27	3.12	1.61	0.12	0.11	0.01	468.66	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes25	25	0.76	4.23	4.90	0.25	0.23	0.01	515.12	0.17	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes50	50	0.76	4.23	4.90	0.25	0.23	0.01	515.12	0.17	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes120	120	0.30	3.00	3.57	0.18	0.16	0.01	475.36	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes175	175	0.22	2.06	3.09	0.10	0.10	0.01	467.53	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes250	250	0.21	2.37	1.19	0.08	0.07	0.01	470.57	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes500	500	0.18	1.78	1.34	0.06	0.06	0.01	469.30	0.15	0.01
Tractors/Loaders/Backhoes	2021	2021Tractors/Loaders/Backhoes750	750	0.25	2.75	1.43	0.10	0.10	0.01	466.46	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes25	25	0.69	4.03	4.76	0.22	0.20	0.01	514.46	0.17	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes50	50	0.69	4.03	4.76	0.22	0.20	0.01	514.46	0.17	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes120	120	0.26	2.65	3.54	0.14	0.13	0.01	475.90	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes175	175	0.20	1.75	3.08	0.09	0.08	0.01	467.80	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes250	250	0.19	1.94	1.16	0.07	0.06	0.01	470.12	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes500	500	0.16	1.44	1.28	0.05	0.05	0.01	469.26	0.15	0.01
Tractors/Loaders/Backhoes	2022	2022Tractors/Loaders/Backhoes750	750	0.23	2.45	1.35	0.09	0.09	0.01	466.63	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes25	25	0.62	3.86	4.63	0.19	0.17	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes50	50	0.62	3.86	4.63	0.19	0.17	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes120	120	0.24	2.43	3.53	0.12	0.11	0.01	476.43	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes175	175	0.18	1.52	3.08	0.08	0.07	0.01	468.82	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes250	250	0.17	1.59	1.15	0.06	0.05	0.01	469.75	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes500	500	0.15	1.25	1.28	0.05	0.04	0.01	469.47	0.15	0.01
Tractors/Loaders/Backhoes	2023	2023Tractors/Loaders/Backhoes750	750	0.23	2.42	1.36	0.10	0.09	0.01	466.68	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes25	25	0.59	3.77	4.61	0.17	0.15	0.01	513.85	0.17	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes50	50	0.59	3.77	4.61	0.17	0.15	0.01	513.85	0.17	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes120	120	0.23	2.29	3.53	0.11	0.10	0.01	476.73	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes175	175	0.18	1.38	3.09	0.07	0.06	0.01	469.40	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes250	250	0.17	1.49	1.15	0.05	0.05	0.01	469.91	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes500	500	0.15	1.16	1.28	0.04	0.04	0.01	470.08	0.15	0.01
Tractors/Loaders/Backhoes	2024	2024Tractors/Loaders/Backhoes750	750	0.22	2.22	1.31	0.09	0.08	0.01	466.64	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes25	25	0.55	3.66	4.56	0.15	0.13	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes50	50	0.55	3.66	4.56	0.15	0.13	0.01	513.80	0.17	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes120	120	0.21	2.11	3.52	0.09	0.08	0.01	477.19	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes175	175	0.16	1.18	3.08	0.06	0.05	0.01	469.33	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes250	250	0.15	1.23	1.15	0.05	0.04	0.01	470.60	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes500	500	0.14	1.05	1.23	0.04	0.04	0.01	470.91	0.15	0.01
Tractors/Loaders/Backhoes	2025	2025Tractors/Loaders/Backhoes750	750	0.19	1.65	1.26	0.07	0.06	0.01	466.45	0.15	0.01
Trenchers	2020	2020Trenchers15	15	0.91	4.68	4.83	0.36	0.33	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers25	25	0.91	4.68	4.83	0.36	0.33	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers50	50	0.91	4.68	4.83	0.36	0.33	0.01	527.10	0.17	0.01
Trenchers	2020	2020Trenchers120	120	0.61	5.52	3.83	0.41	0.38	0.01	475.13	0.15	0.01
Trenchers	2020	2020Trenchers175	175	0.42	4.46	3.33	0.23	0.21	0.01	467.73	0.15	0.01
Trenchers	2020	2020Trenchers250	250	0.39	4.81	1.77	0.20	0.18	0.01	473.60	0.15	0.01
Trenchers	2020	2020Trenchers500	500	0.23	2.78	1.86	0.11	0.10	0.01	470.64	0.15	0.01
Trenchers	2020	2020Trenchers750	750	0.07	0.56	0.95	0.01	0.01	0.01	472.66	0.15	0.01
Trenchers	2021	2021Trenchers15	15	0.81	4.46	4.67	0.31	0.29	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers25	25	0.81	4.46	4.67	0.31	0.29	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers50	50	0.81	4.46	4.67	0.31	0.29	0.01	527.02	0.17	0.01
Trenchers	2021	2021Trenchers120	120	0.56	5.11	3.79	0.37	0.34	0.01	475.29	0.15	0.01

Source: CalEEMod version 2016.3.2 (Unmitigated)

			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Equipment Type	**Year**	**Concatenate**	**HP**	**ROG**	**NOX**	**CO**	**PM10**	**PM2.5**	**SO2**	**CO2**	**CH4**	**N2O**
Trenchers	2021	2021Trenchers175	175	0.41	4.27	3.30	0.22	0.20	0.01	467.73	0.15	0.01
Trenchers	2021	2021Trenchers250	250	0.36	4.36	1.67	0.17	0.16	0.01	473.85	0.15	0.01
Trenchers	2021	2021Trenchers500	500	0.22	2.49	1.86	0.10	0.09	0.01	470.70	0.15	0.01
Trenchers	2021	2021Trenchers750	750	0.07	0.48	0.95	0.01	0.01	0.01	472.53	0.15	0.01
Trenchers	2022	2022Trenchers15	15	0.72	4.27	4.52	0.28	0.25	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers25	25	0.72	4.27	4.52	0.28	0.25	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers50	50	0.72	4.27	4.52	0.28	0.25	0.01	527.03	0.17	0.01
Trenchers	2022	2022Trenchers120	120	0.53	4.91	3.78	0.35	0.32	0.01	475.33	0.15	0.01
Trenchers	2022	2022Trenchers175	175	0.40	4.10	3.31	0.21	0.20	0.01	467.73	0.15	0.01
Trenchers	2022	2022Trenchers250	250	0.34	3.85	1.66	0.16	0.15	0.01	473.85	0.15	0.01
Trenchers	2022	2022Trenchers500	500	0.21	2.21	1.87	0.09	0.09	0.01	470.58	0.15	0.01
Trenchers	2022	2022Trenchers750	750	0.06	0.30	0.94	0.01	0.01	0.01	474.29	0.15	0.01
Trenchers	2023	2023Trenchers15	15	0.64	3.96	4.30	0.22	0.20	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers25	25	0.64	3.96	4.30	0.22	0.20	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers50	50	0.64	3.96	4.30	0.22	0.20	0.01	527.10	0.17	0.01
Trenchers	2023	2023Trenchers120	120	0.50	4.70	3.77	0.33	0.30	0.01	475.69	0.15	0.01
Trenchers	2023	2023Trenchers175	175	0.36	3.66	3.29	0.19	0.17	0.01	467.73	0.15	0.01
Trenchers	2023	2023Trenchers250	250	0.33	3.74	1.64	0.16	0.14	0.01	473.85	0.15	0.01
Trenchers	2023	2023Trenchers500	500	0.20	2.01	1.72	0.09	0.08	0.01	471.61	0.15	0.01
Trenchers	2023	2023Trenchers750	750	0.06	0.30	0.95	0.01	0.01	0.01	474.47	0.15	0.01
Trenchers	2024	2024Trenchers15	15	0.60	3.83	4.23	0.20	0.18	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers25	25	0.60	3.83	4.23	0.20	0.18	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers50	50	0.60	3.83	4.23	0.20	0.18	0.01	527.02	0.17	0.01
Trenchers	2024	2024Trenchers120	120	0.49	4.59	3.77	0.32	0.29	0.01	475.63	0.15	0.01
Trenchers	2024	2024Trenchers175	175	0.36	3.67	3.31	0.19	0.17	0.01	467.73	0.15	0.01
Trenchers	2024	2024Trenchers250	250	0.31	3.48	1.60	0.15	0.13	0.01	473.85	0.15	0.01
Trenchers	2024	2024Trenchers500	500	0.19	1.86	1.67	0.08	0.07	0.01	469.99	0.15	0.01
Trenchers	2024	2024Trenchers750	750	0.06	0.30	0.96	0.01	0.01	0.01	474.48	0.15	0.01
Trenchers	2025	2025Trenchers15	15	0.54	3.66	4.12	0.16	0.15	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers25	25	0.54	3.66	4.12	0.16	0.15	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers50	50	0.54	3.66	4.12	0.16	0.15	0.01	527.16	0.17	0.01
Trenchers	2025	2025Trenchers120	120	0.46	4.28	3.73	0.29	0.26	0.01	475.90	0.15	0.01
Trenchers	2025	2025Trenchers175	175	0.36	3.55	3.31	0.18	0.17	0.01	467.73	0.15	0.01
Trenchers	2025	2025Trenchers250	250	0.31	3.32	1.60	0.14	0.13	0.01	473.92	0.15	0.01
Trenchers	2025	2025Trenchers500	500	0.19	1.83	1.68	0.08	0.07	0.01	470.44	0.15	0.01
Trenchers	2025	2025Trenchers750	750	0.07	0.31	0.96	0.01	0.01	0.01	474.49	0.15	0.01
Welders	2020	2020Welders15	15	0.73	4.54	3.55	0.23	0.23	0.01	568.30	0.07	0.01
Welders	2020	2020Welders25	25	0.77	4.54	2.47	0.21	0.21	0.01	568.30	0.07	0.01
Welders	2020	2020Welders50	50	0.94	4.30	4.84	0.24	0.24	0.01	568.30	0.08	0.01
Welders	2020	2020Welders120	120	0.46	3.35	3.61	0.22	0.22	0.01	568.30	0.04	0.01
Welders	2020	2020Welders175	175	0.34	2.52	3.12	0.13	0.13	0.01	568.30	0.03	0.01
Welders	2020	2020Welders250	250	0.26	2.14	1.09	0.07	0.07	0.01	568.30	0.02	0.01
Welders	2020	2020Welders500	500	0.25	1.91	1.06	0.06	0.06	0.01	568.30	0.02	0.01
Welders	2021	2021Welders15	15	0.72	4.46	3.53	0.21	0.21	0.01	568.30	0.06	0.01
Welders	2021	2021Welders25	25	0.75	4.50	2.45	0.20	0.20	0.01	568.30	0.07	0.01
Welders	2021	2021Welders50	50	0.83	4.13	4.71	0.20	0.20	0.01	568.30	0.07	0.01
Welders	2021	2021Welders120	120	0.41	3.04	3.58	0.18	0.18	0.01	568.30	0.04	0.01
Welders	2021	2021Welders175	175	0.32	2.19	3.11	0.11	0.11	0.01	568.30	0.03	0.01
Welders	2021	2021Welders250	250	0.24	1.84	1.08	0.06	0.06	0.01	568.30	0.02	0.01
Welders	2021	2021Welders500	500	0.24	1.64	1.04	0.06	0.06	0.01	568.30	0.02	0.01
Welders	2022	2022Welders15	15	0.71	4.41	3.52	0.20	0.20	0.01	568.30	0.06	0.01
Welders	2022	2022Welders25	25	0.74	4.47	2.43	0.19	0.19	0.01	568.30	0.07	0.01
Welders	2022	2022Welders50	50	0.76	4.01	4.65	0.18	0.18	0.01	568.30	0.07	0.01
Welders	2022	2022Welders120	120	0.38	2.81	3.57	0.16	0.16	0.01	568.30	0.03	0.01
Welders	2022	2022Welders175	175	0.30	1.94	3.11	0.10	0.10	0.01	568.30	0.03	0.01
Welders	2022	2022Welders250	250	0.23	1.60	1.07	0.05	0.05	0.01	568.30	0.02	0.01
Welders	2022	2022Welders500	500	0.23	1.45	1.04	0.05	0.05	0.01	568.30	0.02	0.01
Welders	2023	2023Welders15	15	0.70	4.36	3.51	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2023	2023Welders25	25	0.73	4.45	2.41	0.19	0.19	0.01	568.30	0.07	0.01
Welders	2023	2023Welders50	50	0.70	3.89	4.60	0.15	0.15	0.01	568.30	0.06	0.01
Welders	2023	2023Welders120	120	0.36	2.60	3.56	0.14	0.14	0.01	568.30	0.03	0.01
Welders	2023	2023Welders175	175	0.28	1.73	3.12	0.09	0.09	0.01	568.30	0.03	0.01
Welders	2023	2023Welders250	250	0.22	1.40	1.07	0.04	0.04	0.01	568.30	0.02	0.01
Welders	2023	2023Welders500	500	0.22	1.29	1.03	0.04	0.04	0.01	568.30	0.02	0.01
Welders	2024	2024Welders15	15	0.69	4.32	3.50	0.19	0.19	0.01	568.30	0.06	0.01
Welders	2024	2024Welders25	25	0.72	4.43	2.39	0.18	0.18	0.01	568.30	0.06	0.01
Welders	2024	2024Welders50	50	0.65	3.78	4.56	0.13	0.13	0.01	568.30	0.06	0.01
Welders	2024	2024Welders120	120	0.34	2.43	3.56	0.12	0.12	0.01	568.30	0.03	0.01
Welders	2024	2024Welders175	175	0.26	1.54	3.12	0.07	0.07	0.01	568.30	0.02	0.01
Welders	2024	2024Welders250	250	0.21	1.23	1.07	0.04	0.04	0.01	568.30	0.02	0.01
Welders	2024	2024Welders500	500	0.21	1.14	1.03	0.04	0.04	0.01	568.30	0.02	0.01
Welders	2025	2025Welders15	15	0.68	4.28	3.49	0.18	0.18	0.01	568.30	0.06	0.01
Welders	2025	2025Welders25	25	0.71	4.41	2.38	0.18	0.18	0.01	568.30	0.06	0.01
Welders	2025	2025Welders50	50	0.60	3.68	4.52	0.11	0.11	0.01	568.30	0.05	0.01
Welders	2025	2025Welders120	120	0.32	2.28	3.56	0.10	0.10	0.01	568.30	0.03	0.01
Welders	2025	2025Welders175	175	0.25	1.37	3.12	0.06	0.06	0.01	568.30	0.02	0.01
Welders	2025	2025Welders250	250	0.20	1.08	1.07	0.03	0.03	0.01	568.30	0.02	0.01
Welders	2025	2025Welders500	500	0.20	0.99	1.03	0.03	0.03	0.01	568.30	0.02	0.01

Calculation Details in CalEEMod Users Guide, Appendix A

No Controls or Mitigation

Paving ROG EF	2.6200	lbs/acre	CalEEMod (no mitigation)
Grading PM10 EF	1.0605	lbs/acre	CalEEMod (no mitigation)
Grading PM2.5 EF	0.1145	lbs/acre	CalEEMod (no mitigation)
Bulldozing PM10 EF	0.7528	lbs/hr	CalEEMod (no mitigation)
Bulldozing PM2.5 EF	0.4138	lbs/hr	CalEEMod (no mitigation)
Truck loading PM10 EF	0.000118	lb/ton	CalEEMod (no mitigation)
Truck loading PM2.5 EF	0.000018	lb/ton	CalEEMod (no mitigation)
Truck loading PM10 EF Dredge	0.000025	lb/ton	
Truck loading PM2.5 EF Dredge	0.000004	lb/ton	
Demo PM10 EF	0.0218	lb/ton	CalEEMod (no mitigation)
Demo PM2.5 EF	0.0033	lb/ton	CalEEMod (no mitigation)

EMFAC Rates				Running (RUNEX, PMTW, PMBW) grams per mile											Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip									
Year	Air Basin	VehType	Lookup	ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4	N2O	ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4	N2O
2020	SDAB	T6	2020SDABT6	0.21	3.46	0.59	0.09	0.26	0.08	0.08	0.01	1,050	0.01	0.17	0.01	1.81	0.17	0.00	0.00	0.00	0.00	0.00	58	0.00	0.01
2021	SDAB	T6	2021SDABT6	0.16	2.81	0.47	0.07	0.26	0.07	0.08	0.01	1,022	0.01	0.16	0.01	1.92	0.17	0.00	0.00	0.00	0.00	0.00	57	0.00	0.01
2022	SDAB	T6	2022SDABT6	0.05	1.84	0.20	0.02	0.26	0.02	0.08	0.01	980	0.00	0.15	0.01	2.16	0.17	0.00	0.00	0.00	0.00	0.00	54	0.00	0.01
2023	SDAB	T6	2023SDABT6	0.01	1.38	0.10	0.01	0.26	0.01	0.08	0.01	947	0.00	0.15	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	52	0.00	0.01
2024	SDAB	T6	2024SDABT6	0.01	1.40	0.10	0.01	0.26	0.01	0.08	0.01	930	0.00	0.15	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	51	0.00	0.01
2025	SDAB	T6	2025SDABT6	0.01	1.42	0.10	0.01	0.26	0.01	0.08	0.01	912	0.00	0.14	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	51	0.00	0.01
2026	SDAB	T6	2026SDABT6	0.01	1.44	0.10	0.01	0.26	0.01	0.08	0.01	897	0.00	0.14	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	50	0.00	0.01
2020	SDAB	T7	2020SDABT7	0.53	7.52	1.30	0.14	0.21	0.14	0.05	0.02	1,892	0.02	0.30	0.35	8.46	4.27	0.01	0.00	0.01	0.00	0.01	855	0.02	0.13
2021	SDAB	T7	2021SDABT7	0.43	6.46	1.14	0.12	0.21	0.11	0.05	0.02	1,860	0.02	0.29	0.35	8.53	4.43	0.01	0.00	0.01	0.00	0.01	867	0.02	0.14
2022	SDAB	T7	2022SDABT7	0.18	4.69	0.66	0.04	0.21	0.04	0.05	0.02	1,794	0.01	0.28	0.35	8.72	4.78	0.00	0.00	0.00	0.00	0.01	904	0.02	0.14
2023	SDAB	T7	2023SDABT7	0.04	3.52	0.43	0.02	0.21	0.02	0.05	0.02	1,727	0.00	0.27	0.35	8.63	5.13	0.00	0.00	0.00	0.00	0.01	883	0.02	0.14
2024	SDAB	T7	2024SDABT7	0.04	3.48	0.43	0.02	0.21	0.02	0.05	0.02	1,704	0.00	0.27	0.35	8.64	5.14	0.00	0.00	0.00	0.00	0.01	874	0.02	0.14
2025	SDAB	T7	2025SDABT7	0.04	3.44	0.43	0.02	0.21	0.02	0.05	0.02	1,682	0.00	0.26	0.35	8.65	5.15	0.00	0.00	0.00	0.00	0.01	866	0.02	0.14
2026	SDAB	T7	2026SDABT7	0.04	3.41	0.43	0.02	0.21	0.02	0.05	0.02	1,661	0.00	0.26	0.35	8.66	5.16	0.00	0.00	0.00	0.00	0.01	857	0.02	0.13
2020	SDAB	LDA-LDT	2020SDABLDA-LDT	0.02	0.07	0.80	0.00	0.12	0.00	0.02	0.00	302	0.00	0.01	0.90	0.25	2.45	0.00	0.00	0.00	0.00	0.00	62	0.07	0.03
2021	SDAB	LDA-LDT	2021SDABLDA-LDT	0.01	0.06	0.74	0.00	0.12	0.00	0.02	0.00	293	0.00	0.01	0.84	0.23	2.37	0.00	0.00	0.00	0.00	0.00	60	0.06	0.03
2022	SDAB	LDA-LDT	2022SDABLDA-LDT	0.01	0.05	0.68	0.00	0.12	0.00	0.02	0.00	285	0.00	0.01	0.79	0.22	2.29	0.00	0.00	0.00	0.00	0.00	58	0.06	0.03
2023	SDAB	LDA-LDT	2023SDABLDA-LDT	0.01	0.04	0.63	0.00	0.12	0.00	0.02	0.00	277	0.00	0.00	0.74	0.20	2.22	0.00	0.00	0.00	0.00	0.00	57	0.05	0.03
2024	SDAB	LDA-LDT	2024SDABLDA-LDT	0.01	0.04	0.59	0.00	0.12	0.00	0.02	0.00	270	0.00	0.00	0.70	0.19	2.15	0.00	0.00	0.00	0.00	0.00	55	0.05	0.02
2025	SDAB	LDA-LDT	2025SDABLDA-LDT	0.01	0.04	0.55	0.00	0.12	0.00	0.02	0.00	263	0.00	0.00	0.66	0.17	2.07	0.00	0.00	0.00	0.00	0.00	54	0.04	0.02
2026	SDAB	LDA-LDT	2026SDABLDA-LDT	0.01	0.03	0.52	0.00	0.12	0.00	0.02	0.00	256	0.00	0.00	0.63	0.16	1.99	0.00	0.00	0.00	0.00	0.00	53	0.04	0.02
2020	SDAB	T6Onsite	2020SDABT6Onsite	1.48	10.03	2.51	0.23	0.26	0.22	0.08	0.01	2,373	0.07	0.37	0.01	1.81	0.17	0.00	0.00	0.00	0.00	0.00	58	0.00	0.01
2021	SDAB	T6Onsite	2021SDABT6Onsite	1.11	8.75	2.10	0.16	0.26	0.15	0.08	0.01	2,338	0.05	0.37	0.01	1.92	0.17	0.00	0.00	0.00	0.00	0.00	57	0.00	0.01
2022	SDAB	T6Onsite	2022SDABT6Onsite	0.35	6.86	1.14	0.06	0.26	0.05	0.08	0.01	2,299	0.02	0.36	0.01	2.16	0.17	0.00	0.00	0.00	0.00	0.00	54	0.00	0.01
2023	SDAB	T6Onsite	2023SDABT6Onsite	0.05	6.23	0.76	0.00	0.26	0.00	0.08	0.01	2,262	0.00	0.36	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	52	0.00	0.01
2024	SDAB	T6Onsite	2024SDABT6Onsite	0.05	6.36	0.77	0.00	0.26	0.00	0.08	0.01	2,219	0.00	0.35	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	51	0.00	0.01
2025	SDAB	T6Onsite	2025SDABT6Onsite	0.05	6.48	0.78	0.00	0.26	0.00	0.08	0.01	2,176	0.00	0.34	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	51	0.00	0.01
2026	SDAB	T6Onsite	2026SDABT6Onsite	0.05	6.58	0.79	0.00	0.26	0.00	0.08	0.01	2,138	0.00	0.34	0.00	2.38	0.18	0.00	0.00	0.00	0.00	0.00	50	0.00	0.01
2020	SDAB	T7Onsite	2020SDABT7Onsite	2.11	17.47	4.14	0.29	0.21	0.27	0.05	0.02	3,669	0.10	0.58	0.35	8.46	4.27	0.01	0.00	0.01	0.00	0.01	855	0.02	0.13
2021	SDAB	T7Onsite	2021SDABT7Onsite	1.70	15.55	3.72	0.21	0.21	0.20	0.05	0.02	3,632	0.08	0.57	0.35	8.53	4.43	0.01	0.00	0.01	0.00	0.01	867	0.02	0.14
2022	SDAB	T7Onsite	2022SDABT7Onsite	0.70	12.30	2.51	0.09	0.21	0.09	0.05	0.02	3,568	0.03	0.56	0.35	8.72	4.78	0.00	0.00	0.00	0.00	0.01	904	0.02	0.14
2023	SDAB	T7Onsite	2023SDABT7Onsite	0.16	10.61	1.78	0.02	0.21	0.02	0.05	0.02	3,499	0.01	0.55	0.35	8.63	5.13	0.00	0.00	0.00	0.00	0.01	883	0.02	0.14
2024	SDAB	T7Onsite	2024SDABT7Onsite	0.15	10.61	1.79	0.02	0.21	0.02	0.05	0.02	3,455	0.01	0.54	0.35	8.64	5.14	0.00	0.00	0.00	0.00	0.01	874	0.02	0.14
2025	SDAB	T7Onsite	2025SDABT7Onsite	0.15	10.63	1.80	0.02	0.21	0.02	0.05	0.02	3,413	0.01	0.54	0.35	8.65	5.15	0.00	0.00	0.00	0.00	0.01	866	0.02	0.14
2026	SDAB	T7Onsite	2026SDABT7Onsite	0.14	10.65	1.81	0.01	0.21	0.01	0.05	0.02	3,370	0.01	0.53	0.35	8.66	5.16	0.00	0.00	0.00	0.00	0.01	857	0.02	0.13

Operational Emission Calculation Sheets

Unmitigated Daily Emissions *Summary for EIR Section*

2022 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1)	220	12	295	39	37	1
City Program	16	18	72	9	2	0
Balance Plan	3	4	20	3	1	0
Bayshore Bikeway	0	-	0	-	-	-
Pasha						
2022 GB Capital Phase 2 Construction	9	87	75	54	13	0
2022 Total	***248***	***121***	***461***	***105***	***53***	***1***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*Yes*	*No*	*No*	*Yes*	*No*	*No*

2025 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1 and 2)	144	30	229	31	22	1
City Program	15	15	62	9	2	0
Balance Plan	3	3	17	3	1	0
Bayshore Bikeway	0	-	0	-	-	-
Pasha						
2025 Total	***161***	***49***	***308***	***43***	***25***	***1***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*Yes*	*No*	*No*	*No*	*No*	*No*

2050 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1 and 2)	138	27	207	31	22	0
City Program	11	12	46	9	2	0
Balance Plan	1	3	13	3	1	0
Bayshore Bikeway	0	-	0	-	-	-
Pasha						
2050 Total	***150***	***42***	***266***	***43***	***25***	***1***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*Yes*	*No*	*No*	*No*	*No*	*No*

Unmitigated Daily Emissions ***Summary by Source by Component***

2022 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	215	4	266	0	36	36
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*222*	*4*	*266*	*0*	*36*	*36*
Energy						
GB Capital	0	3	2	0	0	0
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*1*	*7*	*6*	*0*	*1*	*1*
Vehicles						
GB Capital	4	5	26	0	3	1
City Program	10	14	68	0	9	2
Balanced Plan (Pepper Park)	3	4	20	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*16*	*23*	*115*	*0*	*15*	*3*
Construction						
2022 GB Capital Phase 2 Construction	9	87	75	0	54	13
2022 Daily Total	***248***	***121***	***461***	***1***	***105***	***53***
Threshold	75	250	550	250	100	55
Exceed Threshold?	***Yes***	*No*	*No*	*No*	*Yes*	*No*

Summary by Source by Component

2025 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	131	2	138	0	19	19
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*138*	*2*	*138*	*0*	*19*	*19*
Energy						
GB Capital	1	13	11	0	1	1
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*2*	*17*	*14*	*0*	*1*	*1*
Vehicles						
GB Capital	11	15	80	0	12	3
City Program	8	11	59	0	9	2
Balanced Plan (Pepper Park)	2	3	17	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*22*	*29*	*156*	*0*	*23*	*5*
Recreational Boating						
GB Capital	*17*	*7*	*187*	*0*	*1*	*1*
2025 Daily Total	***178***	***55***	***495***	***1***	***44***	***26***
Threshold	75	250	550	250	100	55
Exceed Threshold?	*Yes*	*No*	*No*	*No*	*No*	*No*

Summary by Source by Component

2050 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	131	2	138	0	19	19
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*138*	*2*	*138*	*0*	*19*	*19*
Energy						
GB Capital	1	13	11	0	1	1
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*2*	*17*	*14*	*0*	*1*	*1*
Vehicles						
GB Capital	6	11	58	0	12	3
City Program	4	8	42	0	9	2
Balanced Plan (Pepper Park)	1	2	12	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*11*	*22*	*113*	*0*	*23*	*5*
Recreational Boating						
GB Capital	*16*	*6*	*193*	*0*	*1*	*1*
2050 Daily Total	***166***	***48***	***458***	***1***	***44***	***26***
Threshold	75	250	550	250	100	55
Exceed Threshold?	*Yes*	*No*	*No*	*No*	*No*	*No*

Mitigated Daily Emissions ***Summary for EIR Section***

2022 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1)	13	10	40	4	1	0
City Program	16	18	72	9	2	0
Balance Plan	3	4	20	3	1	0
Bayshore Bikeway	0	-	0	-	-	-
Pasha						
2022 GB Capital Phase 2 Construction	7	89	98	50	11	0
2022 Total	***39***	***122***	***231***	***65***	***16***	***1***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

2025 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1 and 2)	37	29	97	13	4	0
City Program	15	15	62	9	2	0
Balance Plan	3	3	17	3	1	0
Bayshore Bikeway	.	-	0	-	-	-
Pasha						
2025 Total	***54***	***47***	***177***	***24***	***7***	***1***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

2050 (lbs per day)

Element	ROG	NOX	CO	PM10	PM2.5	SOX
GB Capital (Phase 1 and 2)	31	25	75	13	4	0
City Program	11	12	46	9	2	0
Balance Plan	1	3	13	3	1	0
Bayshore Bikeway	0	-	0	-	-	-
Pasha						
2050 Total	***43***	***41***	***134***	***24***	***7***	***0***
Thresholds	75	250	550	100	55	250
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Mitigated Daily Emissions ***Summary by Source by Component***

2022 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	9	2	12	0	0	0
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*16*	*2*	*12*	*0*	*0*	*0*
Energy						
GB Capital	0	3	2	0	0	0
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*1*	*7*	*6*	*0*	*1*	*1*
Vehicles						
GB Capital	4	5	26	0	3	1
City Program	10	14	68	0	9	2
Balanced Plan (Pepper Park)	3	4	20	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*16*	*23*	*115*	*0*	*15*	*3*
Construction						
2022 GB Capital Phase 2 Constructior	7	89	98	0	50	11
2022 Daily Total	***39***	***122***	***231***	***1***	***65***	***16***
Threshold	75	250	550	250	100	55
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Summary by Source by Component

2025 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	24	1	6	0	0	0
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*31*	*1*	*6*	*0*	*0*	*0*
Energy						
GB Capital	1	13	11	0	1	1
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*2*	*17*	*14*	*0*	*1*	*1*
Vehicles						
GB Capital	11	15	80	0	12	3
City Program	8	11	59	0	9	2
Balanced Plan (Pepper Park)	2	3	17	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*22*	*29*	*156*	*0*	*23*	*5*
Recreational Boating						
GB Capital	*17*	*7*	*187*	*0*	*1*	*1*
2025 Daily Total	***71***	***54***	***363***	***1***	***25***	***8***
Threshold	75	250	550	250	100	55
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Summary by Source by Component

2050 (lbs per day)

Element	ROG	NOX	CO	SOX	PM10	PM2.5
Area Sources						
GB Capital	24	1	6	0	0	0
City Program	6	0	0	-	0	0
Balanced Plan (Pepper Park)	0	0	0	-	0	0
Bayshore Bikeway	0	-	0	-	-	-
Area Sources Total	*31*	*1*	*6*	*0*	*0*	*0*
Energy						
GB Capital	1	13	11	0	1	1
City Program	0	4	3	0	0	0
Balanced Plan (Pepper Park)	0	0	0	0	0	0
Bayshore Bikeway	-	-	-	-	-	-
Energy Total	*2*	*17*	*14*	*0*	*1*	*1*
Vehicles						
GB Capital	6	11	58	0	12	3
City Program	4	8	42	0	9	2
Balanced Plan (Pepper Park)	1	2	12	0	3	1
Bayshore Bikeway	-	-	-	-	-	-
Vehicles Total	*11*	*22*	*113*	*0*	*23*	*5*
Recreational Boating						
GB Capital	16	6	193	0	1	1
2050 Daily Total	***59***	***47***	***327***	***0***	***25***	***7***
Threshold	75	250	550	250	100	55
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Mobile Source Emission Estimates

2022 Operational Analysis

2022

Component	VMT/day	Trips/day	Pounds per Day									
			ROG	NOx	CO	PM10 Ex	PM10 D	PM10 Total	PM2.5 Ex	PM2.5 D	PM2.5 Total	SO2
GB Capital Phase 1	9,020	1,611	3.77	5.35	26.43	0.07	3.29	3.36	0.07	0.74	0.80	0.07
City Program	23,296	4,160	9.74	13.82	68.26	0.19	8.50	8.68	0.17	1.90	2.07	0.18
Balanced Plan (Pepper Park)	6,770	1,209	2.83	4.02	19.84	0.05	2.47	2.52	0.05	0.55	0.60	0.05
Bayshore Bikeway	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pasha	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	39,087	6,980	16.35	23.19	114.53	0.31	14.26	14.57	0.29	3.19	3.48	0.31

2025 Operational Analysis

2025

Component	VMT/day	Trips/day	Pounds per Day									
			ROG	NOx	CO	PM10 Ex	PM10 D	PM10 Total	PM2.5 Ex	PM2.5 D	PM2.5 Total	SO2
GB Capital Phase 1	7,564	1,351	2.65	3.53	19.01	0.05	2.76	2.81	0.04	0.62	0.66	0.05
GB Capital Phase 2	24,438	4,364	8.57	11.42	61.40	0.15	8.92	9.06	0.14	1.99	2.13	0.18
City Program	23,296	4,160	8.17	10.89	58.53	0.14	8.50	8.64	0.13	1.90	2.03	0.17
Balanced Plan (Pepper Park)	6,770	1,209	2.37	3.16	17.01	0.04	2.47	2.51	0.04	0.55	0.59	0.05
Bayshore Bikeway	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pasha	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	62,069	11,084	21.76	29.00	155.95	0.37	22.65	23.02	0.35	5.07	5.41	0.45

2050 Operational Analysis

2050

Component	VMT/day	Trips/day	Pounds per Day									
			ROG	NOx	CO	PM10 Ex	PM10 D	PM10 Total	PM2.5 Ex	PM2.5 D	PM2.5 Total	SO2
GB Capital Phase 1	7,564	1,351	1.31	2.71	13.78	0.03	2.77	2.80	0.02	0.62	0.65	0.04
GB Capital Phase 2	24,438	4,364	4.22	8.75	44.52	0.08	8.95	9.04	0.08	2.01	2.09	0.14
City Program	23,296	4,160	4.02	8.34	42.44	0.08	8.54	8.61	0.08	1.92	1.99	0.13
Balanced Plan (Pepper Park)	6,770	1,209	1.17	2.42	12.33	0.02	2.48	2.50	0.02	0.56	0.58	0.04
Bayshore Bikeway	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pasha	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	62,069	11,084	10.72	22.23	113.06	0.22	22.74	22.95	0.20	5.10	5.30	0.34

Mobile Source Emission Estimates

lbs CO2 per gallon of diesel 22.5 Climate Registry 2018

lbs CO2 per gallon of gas 19.4 Climate Registry 2018

2022 Operational Analysis

2022

Component	VMT/day	Trips/day	Metric Tons per Day			Metric Tons per Year				Gallons
			CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
GB Capital Phase 1	9,020	1,611	3.3	0.00	0.00	1,222	0.08	0.07	1,244	139,149
City Program	23,296	4,160	8.6	0.00	0.00	3,155	0.21	0.17	3,212	359,362
Balanced Plan (Pepper Park)	6,770	1,209	2.5	0.00	0.00	917	0.06	0.05	933	104,440
Bayshore Bikeway	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Pasha	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Total	39,087	6,980	14.5	0.00	0.00	5,294	0.36	0.29	5,389	602,951

2025 Operational Analysis

2025

Component	VMT/day	Trips/day	Metric Tons per Day			Metric Tons per Year				Gallons
			CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
GB Capital Phase 1	7,564	1,351	2.6	0.00	0.00	954	0.06	0.05	971	108,697
GB Capital Phase 2	24,438	4,364	8.4	0.00	0.00	3,083	0.20	0.16	3,136	351,165
City Program	23,296	4,160	8.1	0.00	0.00	2,939	0.19	0.15	2,990	334,749
Balanced Plan (Pepper Park)	6,770	1,209	2.3	0.00	0.00	854	0.06	0.04	869	97,287
Bayshore Bikeway	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Pasha	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Total	62,069	11,084	21.5	0.00	0.00	7,831	0.52	0.41	7,966	891,898

2050 Operational Analysis

2050

Component	VMT/day	Trips/day	Metric Tons per Day			Metric Tons per Year				Gallons
			CO2	CH4	N2O	CO2	CH4	N2O	CO2e	
GB Capital Phase 1	7,564	1,351	2.2	0.00	0.00	814	0.05	0.04	828	92,697
GB Capital Phase 2	24,438	4,364	7.2	0.00	0.00	2,629	0.17	0.14	2,674	299,475
City Program	23,296	4,160	6.9	0.00	0.00	2,506	0.17	0.13	2,549	285,476
Balanced Plan (Pepper Park)	6,770	1,209	2.0	0.00	0.00	728	0.05	0.04	741	82,966
Bayshore Bikeway	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Pasha	0	0	0.0	0.00	0.00	0	0.00	0.00	0	-
Total	62,069	11,084	18.3	0.00	0.00	6,678	0.44	0.34	6,792	760,614

Onroad Mobile Emission Factor Summary

			Running (RUNEX, PMTW, PMBW) grams per mile										
Year	Air Basin	VehType	ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4	N2O
2020	SDAB	All	0.04	0.27	1.05	0.01	0.05	0.00	0.02	0.00	377	0.02	0.02
2021	SDAB	All	0.04	0.24	0.98	0.00	0.05	0.00	0.02	0.00	367	0.02	0.02
2022	SDAB	All	0.03	0.20	0.90	0.00	0.05	0.00	0.02	0.00	356	0.02	0.01
2023	SDAB	All	0.03	0.17	0.84	0.00	0.05	0.00	0.02	0.00	344	0.01	0.01
2024	SDAB	All	0.03	0.16	0.79	0.00	0.05	0.00	0.02	0.00	334	0.01	0.01
2025	SDAB	All	0.03	0.15	0.75	0.00	0.05	0.00	0.02	0.00	323	0.01	0.01
2026	SDAB	All	0.03	0.14	0.71	0.00	0.05	0.00	0.02	0.00	314	0.01	0.01
2027	SDAB	All	0.02	0.14	0.69	0.00	0.05	0.00	0.02	0.00	306	0.01	0.01
2028	SDAB	All	0.02	0.13	0.66	0.00	0.05	0.00	0.02	0.00	298	0.01	0.01
2029	SDAB	All	0.02	0.13	0.64	0.00	0.05	0.00	0.02	0.00	291	0.01	0.01
2030	SDAB	All	0.02	0.12	0.63	0.00	0.05	0.00	0.02	0.00	285	0.01	0.01
2031	SDAB	All	0.02	0.12	0.61	0.00	0.05	0.00	0.02	0.00	280	0.02	0.01
2032	SDAB	All	0.02	0.12	0.60	0.00	0.05	0.00	0.02	0.00	275	0.02	0.01
2033	SDAB	All	0.02	0.11	0.59	0.00	0.05	0.00	0.02	0.00	271	0.02	0.01
2034	SDAB	All	0.02	0.11	0.58	0.00	0.05	0.00	0.02	0.00	268	0.02	0.01
2035	SDAB	All	0.02	0.11	0.58	0.00	0.05	0.00	0.02	0.00	265	0.02	0.01
2036	SDAB	All	0.02	0.11	0.57	0.00	0.05	0.00	0.02	0.00	262	0.02	0.01
2037	SDAB	All	0.02	0.11	0.56	0.00	0.05	0.00	0.02	0.00	260	0.02	0.01
2038	SDAB	All	0.02	0.11	0.56	0.00	0.05	0.00	0.02	0.00	259	0.02	0.01
2039	SDAB	All	0.02	0.11	0.55	0.00	0.05	0.00	0.02	0.00	257	0.02	0.01
2040	SDAB	All	0.02	0.11	0.55	0.00	0.05	0.00	0.02	0.00	256	0.02	0.01
2041	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	255	0.02	0.01
2042	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	254	0.02	0.01
2043	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	254	0.02	0.01
2044	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2045	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2046	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2047	SDAB	All	0.02	0.11	0.54	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2048	SDAB	All	0.02	0.11	0.53	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2049	SDAB	All	0.02	0.11	0.53	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01
2050	SDAB	All	0.02	0.11	0.53	0.00	0.05	0.00	0.02	0.00	253	0.02	0.01

From EMFAC2017, aggregate MY, fleet, speeds, by calendar year

Onroad Mobile Emission Factor Summ

			Process (IDLEX, STREX, TOTEX, DIURN, HTSK, RUNLS, RESTL) grams per trip										
Year	Air Basin	VehType	ROG	NOx	CO	PM10 Ex	PM10 D	PM2.5 Ex	PM2.5 D	SO2	CO2	CH4	N2O
2020	SDAB	All	0.98	0.42	2.56	0.00	0.00	0.00	0.00	0.00	76	0.07	0.03
2021	SDAB	All	0.92	0.41	2.48	0.00	0.00	0.00	0.00	0.00	75	0.06	0.03
2022	SDAB	All	0.87	0.39	2.40	0.00	0.00	0.00	0.00	0.00	73	0.06	0.03
2023	SDAB	All	0.82	0.37	2.32	0.00	0.00	0.00	0.00	0.00	71	0.05	0.03
2024	SDAB	All	0.78	0.36	2.24	0.00	0.00	0.00	0.00	0.00	69	0.05	0.03
2025	SDAB	All	0.74	0.35	2.16	0.00	0.00	0.00	0.00	0.00	67	0.05	0.03
2026	SDAB	All	0.70	0.34	2.08	0.00	0.00	0.00	0.00	0.00	65	0.04	0.02
2027	SDAB	All	0.67	0.33	2.01	0.00	0.00	0.00	0.00	0.00	63	0.04	0.02
2028	SDAB	All	0.64	0.32	1.95	0.00	0.00	0.00	0.00	0.00	62	0.04	0.02
2029	SDAB	All	0.61	0.31	1.90	0.00	0.00	0.00	0.00	0.00	60	0.04	0.02
2030	SDAB	All	0.58	0.30	1.85	0.00	0.00	0.00	0.00	0.00	59	0.03	0.02
2031	SDAB	All	0.55	0.30	1.80	0.00	0.00	0.00	0.00	0.00	57	0.03	0.02
2032	SDAB	All	0.53	0.29	1.76	0.00	0.00	0.00	0.00	0.00	56	0.03	0.02
2033	SDAB	All	0.50	0.29	1.73	0.00	0.00	0.00	0.00	0.00	55	0.03	0.02
2034	SDAB	All	0.48	0.28	1.70	0.00	0.00	0.00	0.00	0.00	54	0.03	0.02
2035	SDAB	All	0.45	0.28	1.67	0.00	0.00	0.00	0.00	0.00	53	0.03	0.02
2036	SDAB	All	0.44	0.28	1.64	0.00	0.00	0.00	0.00	0.00	53	0.03	0.02
2037	SDAB	All	0.42	0.28	1.62	0.00	0.00	0.00	0.00	0.00	52	0.02	0.02
2038	SDAB	All	0.41	0.27	1.60	0.00	0.00	0.00	0.00	0.00	52	0.02	0.02
2039	SDAB	All	0.39	0.27	1.59	0.00	0.00	0.00	0.00	0.00	51	0.02	0.02
2040	SDAB	All	0.38	0.27	1.57	0.00	0.00	0.00	0.00	0.00	51	0.02	0.02
2041	SDAB	All	0.37	0.27	1.56	0.00	0.00	0.00	0.00	0.00	51	0.02	0.02
2042	SDAB	All	0.36	0.27	1.55	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2043	SDAB	All	0.36	0.27	1.54	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2044	SDAB	All	0.35	0.27	1.53	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2045	SDAB	All	0.35	0.27	1.52	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2046	SDAB	All	0.34	0.28	1.52	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2047	SDAB	All	0.34	0.28	1.51	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2048	SDAB	All	0.33	0.28	1.50	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2049	SDAB	All	0.33	0.28	1.50	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02
2050	SDAB	All	0.33	0.28	1.49	0.00	0.00	0.00	0.00	0.00	50	0.02	0.02

From EMFAC2017, aggregate MY, fleet, speeds, by calendar year

SAFE Adjustment

Year	NOx Exhaust	TOG Evaporative	TOG Exhaust	PM Exhaust	CO Exhaust	CO2	Other
2021	1.0002	1.0001	1.0002	1.0009	1.0005	1.0023	1
2022	1.0004	1.0003	1.0004	1.0018	1.0014	1.0065	1
2023	1.0007	1.0006	1.0007	1.0032	1.0027	1.0126	1
2024	1.0012	1.001	1.0011	1.0051	1.0044	1.0207	1
2025	1.0018	1.0016	1.0016	1.0074	1.0065	1.0309	1
2026	1.0023	1.0022	1.002	1.0091	1.0083	1.0394	1
2027	1.0028	1.0028	1.0024	1.0105	1.0102	1.0475	1
2028	1.0034	1.0035	1.0028	1.0117	1.012	1.0554	1
2029	1.004	1.0042	1.0032	1.0129	1.0138	1.0629	1
2030	1.0047	1.0051	1.0037	1.0142	1.0156	1.0702	1
2031	1.0054	1.0061	1.0042	1.0155	1.0173	1.077	1
2032	1.0061	1.0072	1.0047	1.0169	1.0189	1.0834	1
2033	1.0068	1.0083	1.0052	1.0182	1.0204	1.0893	1
2034	1.0075	1.0095	1.0058	1.0196	1.0218	1.0947	1
2035	1.0081	1.0108	1.0063	1.021	1.0232	1.0997	1
2036	1.0088	1.0121	1.0069	1.0223	1.0244	1.1041	1
2037	1.0094	1.0134	1.0074	1.0236	1.0255	1.108	1
2038	1.0099	1.0148	1.0079	1.0248	1.0265	1.1114	1
2039	1.0104	1.0161	1.0085	1.0259	1.0274	1.1143	1
2040	1.0109	1.0174	1.009	1.027	1.0281	1.1168	1
2041	1.0113	1.0186	1.0095	1.0279	1.0288	1.1189	1
2042	1.0116	1.0198	1.0099	1.0286	1.0294	1.1207	1
2043	1.0119	1.0207	1.0103	1.0293	1.0299	1.1221	1
2044	1.0122	1.0216	1.0106	1.0299	1.0303	1.1233	1
2045	1.0124	1.0225	1.0109	1.0303	1.0306	1.1243	1
2046	1.0125	1.0233	1.0111	1.0308	1.0309	1.1251	1
2047	1.0127	1.024	1.0113	1.0311	1.0311	1.1258	1
2048	1.0128	1.0246	1.0115	1.0314	1.0313	1.1263	1
2049	1.0128	1.0252	1.0116	1.0316	1.0315	1.1268	1
2050	1.0129	1.0257	1.0117	1.0318	1.0316	1.1272	1
	2	*3*	*4*	*5*	*6*	*7*	*8*

Re-entrained Paved Road Dust Emission Factor

Methodology

USEPA AP-42, Paved Roads, Section 13.2.1, Revised January 2011:
https://www.arb.ca.gov/ei/areasrc/PMSJVPavedRoadMethod2003.pdf
CARB 2018, MISCELLANEOUS PROCESS METHODOLOGY 7.9
https://www.arb.ca.gov/ei/areasrc/fullpdf/full7-9_2018.pdf

Equation 2

Pollutant	Variables					
	k	sL	W	P	N	g per mi
PM_{10}	0.0022	0.036	2.4	42	365	0.11617
$PM_{2.5}$	0.0003	0.036	2.4	42	365	0.01743

E = particulate emission factor (grams of particulate matter/VMT)	
k = particle size multiplier (lb/VMT)	CARB Section 7.9, page 2
sL = local roadway silt loading (g/m2)	CARB Section 7.9, Table 3 (weighted by % travel on roads in San Diego County)
W = average weight of vehicles on the road (tons)	CARB Section 7.9, Table 7
P = number of wet days with at least 0.254mm of precipitation	CARB Section 7.9, Table 8
N = number of days in the averaging period	annual days (365)
g to lb conversion	0.002204623

	sL - statewide	sL - San Diego	travel frac-San Diego
Fwy	0.015	0.015	0.553
Major	0.032	0.032	0.319
Collector	0.032	0.032	0.08
Local	0.32	0.32	0.048
overall	0.036	0.036	1.00

Recreational Boating Calculations

	Tons per Year									
Year	**NOx**	**PM10**	**PM2.5**	**ROG**	**CO**	**SO2**	**CO2**	**CH4**	**N2O**	**CO2e**
2025	1.26	0.17	0.17	3.03	34.04	0.003	258.47	0.07	0.04	282
2040	1.13	0.13	0.12	2.84	35.21	0.003	266.10	0.06	0.04	284

	lbs per day					
Year	**ROG**	**NOx**	**CO**	**SO2**	**PM10**	**PM2.5**
2025	16.61	6.91	186.54	0.02	0.94	0.91
2040	15.58	6.21	192.91	0.02	0.70	0.68

	Entire pop	project pop
	793,527	95
	1,104,522	95
		365
		2000
		0.907184741

	MT/year			
	CO2	**CH4**	**N2O**	**CO2e**
2025	234	0	0	256
2040	241	0	0	258

Assumptions

Used ARB OFFROAD2007 model

Annual = 95 boats / OFFROAD pop for 365 days per year

2050 same asa 2040 (max year for OFFROAD model)

HP assumed between 50 and 500 hp

PM2.5 97% of PM10

ROG includes both exhaust and evap

OFFROAD Output

Exhaust

CY	Season	AvgDays	Code	Equipment	Fuel	Population	Activity	Consumption	ROG Exhaust	CO Exhaust	NOX Exhaust	CO2 Exhaust	SO2 Exhaust	PM Exhaust	N2O Exhaust	CH4 Exhaust
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	5.63E+04	7.38E+03	1.89E+04	3.43E+00	6.60E+00	7.86E-01	1.59E+02	2.52E-03	1.46E+00	3.98E-02	2.13E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	2.60E+04	3.41E+03	1.57E+04	2.81E+00	6.26E+00	6.54E-01	1.31E+02	2.14E-03	1.24E+00	2.51E-02	1.75E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	7.46E+03	9.79E+02	5.83E+03	9.73E-01	1.90E+00	3.64E-01	4.95E+01	8.29E-04	4.81E-01	1.03E-02	6.05E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	1.51E+03	1.98E+02	1.70E+03	3.63E-01	6.80E-01	7.26E-03	1.40E+01	2.34E-04	1.36E-01	5.90E-04	2.26E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	G4	1.97E+05	5.01E+04	2.73E+05	7.52E+00	3.06E+02	9.22E+00	2.12E+03	2.45E-02	2.03E-01	3.51E-01	4.21E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Sterndrive Engines	G4	4.46E+05	8.90E+04	3.57E+05	9.53E+00	3.95E+02	1.18E+01	2.79E+03	3.22E-02	2.67E-01	5.22E-01	5.34E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Jet Engines	G4	4.28E+04	8.54E+03	5.51E+04	1.53E+00	6.14E+01	1.93E+00	4.30E+02	4.95E-03	4.11E-02	6.65E-02	8.55E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	D	1.61E+04	4.09E+03	2.04E+04	1.20E+00	1.81E+00	4.13E+00	2.19E+02	2.46E-03	1.10E-01	0.00E+00	1.09E-01
						793,527			2.74E+01	7.79E+02	2.89E+01	5.92E+03	6.97E-02	3.94E+00	1.02E+00	1.62E+00

Evap

CY	Season	AvgDays	Code	Desc	Fuel	Population	Evap Type	ROG Evap
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	5.63E+04	Hot Soak	5.46E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	5.63E+04	Diurnal	4.34E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	5.63E+04	Resting	2.18E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	5.63E+04	Running	2.61E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	2.60E+04	Hot Soak	2.51E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	2.60E+04	Diurnal	2.00E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	2.60E+04	Resting	1.01E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	2.60E+04	Running	1.20E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	7.46E+03	Hot Soak	7.19E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	7.46E+03	Diurnal	5.74E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	7.46E+03	Resting	2.93E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	7.46E+03	Running	3.44E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	1.51E+03	Hot Soak	1.45E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	1.51E+03	Diurnal	1.16E-02
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	1.51E+03	Resting	6.01E-03
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Outboard Engines	G2	1.51E+03	Running	6.94E-03
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	G4	1.97E+05	Hot Soak	4.48E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	G4	1.97E+05	Diurnal	2.68E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	G4	1.97E+05	Resting	2.87E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Engines	G4	1.97E+05	Running	1.56E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Sterndrive Engines	G4	4.46E+05	Hot Soak	1.01E+01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Sterndrive Engines	G4	4.46E+05	Diurnal	6.09E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Sterndrive Engines	G4	4.46E+05	Resting	6.52E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Sterndrive Engines	G4	4.46E+05	Running	2.84E+00
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Jet Engines	G4	4.28E+04	Hot Soak	9.72E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Jet Engines	G4	4.28E+04	Diurnal	5.84E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Jet Engines	G4	4.28E+04	Resting	6.41E-01
2025	Annual	Mon-Sun	8.41E+13	Vessels w/Inboard Jet Engines	G4	4.28E+04	Running	2.93E-01
								4.20E+01

Diesel gallons	892
Gasoline gallons	31,774

Consumption	Fuel consumption (gal/day for total population)

OFFROAD Output

Exhaust

CY	Season	AvgDays	Code	Equipment	Fuel	Population	Activity	Consumption	ROG Exhaust	CO Exhaust	NOX Exhaust	CO2 Exhaust	SO2 Exhaust	PM Exhaust	N2O Exhaust	CH4 Exhaust
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	5.31E+04	6.96E+03	16946.14	1.93E+00	3.79E+00	5.85E-01	1.50E+02	2.37E-03	1.38E+00	3.38E-02	1.20E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	2.45E+04	3.21E+03	1.40E+04	1.57E+00	3.57E+00	4.96E-01	1.24E+02	2.01E-03	1.17E+00	2.16E-02	9.78E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	7.04E+03	9.23E+02	5.21E+03	5.22E-01	1.04E+00	2.77E-01	4.67E+01	7.81E-04	4.53E-01	8.82E-03	3.24E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	1.42E+03	1.86E+02	1.52E+03	2.15E-01	4.09E-01	4.53E-03	1.32E+01	2.20E-04	1.28E-01	4.66E-04	1.34E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	G4	3.11E+05	7.91E+04	4.31E+05	1.10E+01	4.85E+02	1.26E+01	3.35E+03	3.86E-02	3.21E-01	5.22E-01	6.16E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Sterndrive Engines	G4	6.34E+05	1.26E+05	5.06E+05	1.22E+01	5.57E+02	1.39E+01	3.96E+03	4.56E-02	3.79E-01	6.85E-01	6.83E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Jet Engines	G4	4.82E+04	9.61E+03	6.19E+04	1.53E+00	6.87E+01	1.75E+00	4.84E+02	5.57E-03	4.62E-02	6.82E-02	8.58E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	D	2.54E+04	6.46E+03	3.23E+04	1.90E+00	2.86E+00	6.52E+00	3.46E+02	3.89E-03	1.76E-01	0.00E+00	1.72E-01
						1104521.90			3.09E+01	1.12E+03	3.61E+01	8.48E+03	9.91E-02	4.05E+00	1.34E+00	1.82E+00

Evap

CY	Season	AvgDays	Code	Desc	Fuel	Population	Evap Type	ROG Evap
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	5.31E+04	Hot Soak	5.15E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	5.31E+04	Diurnal	4.10E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	5.31E+04	Resting	2.05E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	5.31E+04	Running	2.56E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	2.45E+04	Hot Soak	2.36E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	2.45E+04	Diurnal	1.88E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	2.45E+04	Resting	9.52E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	2.45E+04	Running	1.18E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	7.04E+03	Hot Soak	6.78E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	7.04E+03	Diurnal	5.41E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	7.04E+03	Resting	2.76E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	7.04E+03	Running	3.38E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	1.42E+03	Hot Soak	1.37E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	1.42E+03	Diurnal	1.09E-02
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	1.42E+03	Resting	5.66E-03
2040	Annual	Mon-Sun	8E+13	Vessels w/Outboard Engines	G2	1.42E+03	Running	6.83E-03
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	G4	3.11E+05	Hot Soak	7.07E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	G4	3.11E+05	Diurnal	4.24E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	G4	3.11E+05	Resting	4.54E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Engines	G4	3.11E+05	Running	2.47E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Sterndrive Engines	G4	6.34E+05	Hot Soak	1.44E+01
2040	Annual	Mon-Sun	8E+13	Vessels w/Sterndrive Engines	G4	6.34E+05	Diurnal	8.65E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Sterndrive Engines	G4	6.34E+05	Resting	9.25E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Sterndrive Engines	G4	6.34E+05	Running	4.06E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Jet Engines	G4	4.82E+04	Hot Soak	1.09E+00
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Jet Engines	G4	4.82E+04	Diurnal	6.57E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Jet Engines	G4	4.82E+04	Resting	7.21E-01
2040	Annual	Mon-Sun	8E+13	Vessels w/Inboard Jet Engines	G4	4.82E+04	Running	3.35E-01
								5.97E+01

Diesel gallons	1,012
Gasoline gallons	32,526

Operational Modeling
2022 CalEEMod Runs

Balance Plan 2022

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.71	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2022 - San Diego County, Annual

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation -

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Trips and VMT - Operation only.

Balance Plan 2022 - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.71
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	135.4846	135.4846	1.2000e-003	1.1500e-003	135.8578
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2951	0.0000	1.2951	0.0765	0.0000	3.2085
Water						0.0000	0.0000		0.0000	0.0000	0.6500	13.3532	14.0032	0.0668	1.5800e-003	16.1420
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.9451**	**148.8380**	**150.7831**	**0.1445**	**2.7300e-003**	**155.2086**

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	135.4846	135.4846	1.2000e-003	1.1500e-003	135.8578
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.6475	0.0000	0.6475	0.0383	0.0000	1.6043
Water						0.0000	0.0000		0.0000	0.0000	0.5200	11.7368	12.2568	0.0534	1.2600e-003	13.9679
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.1676**	**147.2216**	**148.3891**	**0.0929**	**2.4100e-003**	**151.4302**

	ROG	NOx	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**	**39.97**	**1.09**	**1.59**	**35.72**	**11.72**	**2.43**

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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Quality Restaurant	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	72.6719	72.6719	0.0000	0.0000	72.6719
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	72.6719	72.6719	0.0000	0.0000	72.6719
NaturalGas Mitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
NaturalGas Unmitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	16.1867	0.0000	0.0000	16.1867
Quality Restaurant	261225	56.4852	0.0000	0.0000	56.4852
Total		**72.6719**	**0.0000**	**0.0000**	**72.6719**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	16.1867	0.0000	0.0000	16.1867
Quality Restaurant	261225	56.4852	0.0000	0.0000	56.4852
Total		**72.6719**	**0.0000**	**0.0000**	**72.6719**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	12.2568	0.0534	1.2600e-003	13.9679
Unmitigated	14.0032	0.0668	1.5800e-003	16.1420

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.02636	7.2704	0.0000	0.0000	7.2704
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.04885 / 0.130778	6.7328	0.0668	1.5800e-003	8.8717
Total		**14.0032**	**0.0668**	**1.5800e-003**	**16.1420**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.84175	6.8269	0.0000	0.0000	6.8269
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.63908 / 0.1228	5.4299	0.0534	1.2600e-003	7.1410
Total		**12.2568**	**0.0534**	**1.2600e-003**	**13.9678**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6475	0.0383	0.0000	1.6043
Unmitigated	1.2951	0.0765	0.0000	3.2085

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.22	0.0447	2.6400e-003	0.0000	0.1106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.16	1.2504	0.0739	0.0000	3.0979
Total		**1.2951**	**0.0765**	**0.0000**	**3.2085**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.11	0.0223	1.3200e-003	0.0000	0.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.08	0.6252	0.0370	0.0000	1.5489
Total		**0.6475**	**0.0383**	**0.0000**	**1.6043**

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

Balance Plan 2022

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.71	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2022 - San Diego County, Winter

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation -

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.71
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

	ROG	NOx	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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Quality Restaurant	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
NaturalGas Unmitigated	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3224.84	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.22484	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Unmitigated	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-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	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-004	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Bayshore Bikeway 2022

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblAreaMitigation	UseLowVOCPaintParkingValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	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	tons/yr										MT/yr					
Area	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0175	7.0175	0.0000	0.0000	7.0175
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0175**	**7.0175**	**0.0000**	**0.0000**	**7.0175**

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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.0175	7.0175	0.0000	0.0000	7.0175
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**7.0175**	**7.0175**	**0.0000**	**0.0000**	**7.0175**

	ROG	NOx	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**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.0175	7.0175	0.0000	0.0000	7.0175
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.0175	7.0175	0.0000	0.0000	7.0175
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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	32474	7.0175	0.0000	0.0000	7.0175
Total		**7.0175**	**0.0000**	**0.0000**	**7.0175**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	32474	7.0175	0.0000	0.0000	7.0175
Total		**7.0175**	**0.0000**	**0.0000**	**7.0175**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

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	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000

Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Bayshore Bikeway 2022

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblAreaMitigation	UseLowVOCPaintParkingValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

	ROG	NOx	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**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Unmitigated	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-004**

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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-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

City Program 2022 - San Diego County, Annual

City Program 2022

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	3.50	Acre	3.50	152,460.00	0
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Trips and VMT - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation - Energy Star appliances. Conservative beacuse not applied to High Turnover (Sit Down Restaurant) land use subtype.

Water Mitigation - 20% reduction or greater from installation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	tons/yr										MT/yr					
Area	1.1418	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	1,607.3049	1,607.3049	0.0158	0.0151	1,612.2019
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	56.6710	0.0000	56.6710	3.3492	0.0000	140.4001
Water						0.0000	0.0000		0.0000	0.0000	2.9818	29.4898	32.4715	0.3063	7.2300e-003	42.2828
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**59.6528**	**1,636.7978**	**1,696.4506**	**3.6712**	**0.0223**	**1,794.8883**

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	1.1418	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	1,599.4809	1,599.4809	0.0158	0.0151	1,604.3780
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	28.3355	0.0000	28.3355	1.6746	0.0000	70.2000
Water						0.0000	0.0000		0.0000	0.0000	2.3854	24.0149	26.4003	0.2450	5.7900e-003	34.2494
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**30.7209**	**1,623.4990**	**1,654.2199**	**1.9354**	**0.0209**	**1,708.8308**

	ROG	NOx	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**	**48.50**	**0.81**	**2.49**	**47.28**	**6.45**	**4.79**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	775.4030	775.4030	0.0000	0.0000	775.4030
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	783.2270	783.2270	0.0000	0.0000	783.2270
NaturalGas Mitigated	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750
NaturalGas Unmitigated	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	599850	129.6252	0.0000	0.0000	129.6252
Hotel	2.82051e+006	609.5008	0.0000	0.0000	609.5008
Parking Lot	53361	11.5311	0.0000	0.0000	11.5311
Strip Mall	150720	32.5700	0.0000	0.0000	32.5700

Total		**783.2270**	**0.0000**	**0.0000**	**783.2270**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	599850	129.6252	0.0000	0.0000	129.6252
Hotel	2.78686e+006	602.2291	0.0000	0.0000	602.2291
Parking Lot	53361	11.5311	0.0000	0.0000	11.5311
Strip Mall	148164	32.0176	0.0000	0.0000	32.0176
Total		**775.4030**	**0.0000**	**0.0000**	**775.4030**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1418	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-003
Unmitigated	1.1418	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-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	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-003
Total	**1.1417**	**2.0000e-005**	**1.6700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4500e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4500e-003
Total	**1.1417**	**2.0000e-005**	**1.6700e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.4003	0.2450	5.7900e-003	34.2494
Unmitigated	32.4715	0.3063	7.2300e-003	42.2828

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	4.70477 / 0.300305	15.4518	0.1533	3.6200e-003	20.3632
Hotel	3.80502 / 0.422779	12.9287	0.1240	2.9300e-003	16.9008
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.544791	4.0910	0.0290	6.8000e-004	5.0189

Total		**32.4715**	**0.3063**	**7.2300e-003**	**42.2829**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	3.76382 / 0.281986	12.4617	0.1226	2.9000e-003	16.3907
Hotel	3.04401 / 0.39699	10.4840	0.0992	2.3400e-003	13.6617
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.711096 / 0.511559	3.4546	0.0232	5.5000e-004	4.1970
Total		**26.4003**	**0.2450**	**5.7900e-003**	**34.2494**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.3355	1.6746	0.0000	70.2000
Unmitigated	56.6710	3.3492	0.0000	140.4001

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	184.45	37.4417	2.2127	0.0000	92.7602
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.6	2.5577	0.1512	0.0000	6.3366
Total		**56.6710**	**3.3492**	**0.0000**	**140.4001**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	92.225	18.7208	1.1064	0.0000	46.3801
Hotel	41.065	8.3358	0.4926	0.0000	20.6517
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.3	1.2788	0.0756	0.0000	3.1683
Total		**28.3355**	**1.6746**	**0.0000**	**70.2000**

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

City Program 2022 - San Diego County, Winter

City Program 2022

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0
Parking Lot	3.50	Acre	3.50	152,460.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	6.2571	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5028**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1023**

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	6.2571	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5028**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1023**

	ROG	NOx	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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73

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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
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	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Hotel	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Strip Mall	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
NaturalGas Unmitigated	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601

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					
High Turnover (Sit Down Restaurant)	7405.18	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34830.1	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	73.3151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

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					
High Turnover (Sit Down Restaurant)	7.40518	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34.8301	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0733151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.2571	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Unmitigated	6.2571	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7200e-003	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2571**	**1.7000e-004**	**0.0185**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7200e-003	1.7000e-004	0.0185	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2571**	**1.7000e-004**	**0.0185**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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

GB Capital Phase 1 2022 - San Diego County, Annual

GB Capital Phase 1 2022

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0
Motel	60.00	Room	2.70	117,612.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Mobile Home Park	135.00	Dwelling Unit	17.01	162,000.00	386

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Energy Mitigation - Energy Star appliances. No appliances for parking lot or recreational swimming pool. Conservative because can't apply to unrefrigerated warehouse-no rail

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00

tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	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	tons/yr										MT/yr					
Area	10.0521	0.1770	11.4608	0.0190		1.4716	1.4716		1.4716	1.4716	139.4493	60.1226	199.5719	0.1303	0.0110	206.0974
Energy	0.0560	0.4996	0.3601	3.0500e-003		0.0387	0.0387		0.0387	0.0387	0.0000	1,128.5298	1,128.5298	0.0106	0.0102	1,131.8210
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	31.7133	0.0000	31.7133	1.8742	0.0000	78.5683
Water						0.0000	0.0000		0.0000	0.0000	7.3096	82.2977	89.6073	0.7508	0.0177	113.6591
Total	**10.1081**	**0.6766**	**11.8209**	**0.0221**	**0.0000**	**1.5103**	**1.5103**	**0.0000**	**1.5103**	**1.5103**	**178.4722**	**1,270.9500**	**1,449.4222**	**2.7659**	**0.0389**	**1,530.1459**

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	1.5910	0.0942	1.0398	5.8000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	97.3390	97.3390	3.4200e-003	1.7500e-003	97.9473
Energy	0.0560	0.4996	0.3601	3.0500e-003		0.0387	0.0387		0.0387	0.0387	0.0000	1,120.7801	1,120.7801	0.0106	0.0102	1,124.0713
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	15.8566	0.0000	15.8566	0.9371	0.0000	39.2842
Water						0.0000	0.0000		0.0000	0.0000	5.8477	68.2661	74.1138	0.6006	0.0142	93.3553
Total	**1.6470**	**0.5938**	**1.3999**	**3.6300e-003**	**0.0000**	**0.0509**	**0.0509**	**0.0000**	**0.0509**	**0.0509**	**21.7043**	**1,286.3852**	**1,308.0895**	**1.5518**	**0.0261**	**1,354.6581**

	ROG	NOx	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	**83.71**	**12.24**	**88.16**	**83.54**	**0.00**	**96.63**	**96.63**	**0.00**	**96.63**	**96.63**	**87.84**	**-1.21**	**9.75**	**43.90**	**32.87**	**11.47**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	566.9283	566.9283	0.0000	0.0000	566.9283
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	574.6780	574.6780	0.0000	0.0000	574.6780
NaturalGas Mitigated	0.0560	0.4996	0.3601	3.0500e-003		0.0387	0.0387		0.0387	0.0387	0.0000	553.8518	553.8518	0.0106	0.0102	557.1430
NaturalGas Unmitigated	0.0560	0.4996	0.3601	3.0500e-003		0.0387	0.0387		0.0387	0.0387	0.0000	553.8518	553.8518	0.0106	0.0102	557.1430

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
Mobile Home Park	3.11808e+006	0.0168	0.1437	0.0611	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.3925	166.3925	3.1900e-003	3.0500e-003	167.3813
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0560**	**0.4996**	**0.3601**	**3.0500e-003**		**0.0387**	**0.0387**		**0.0387**	**0.0387**	**0.0000**	**553.8518**	**553.8518**	**0.0106**	**0.0102**	**557.1430**

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Mobile Home Park	3.11808e+006	0.0168	0.1437	0.0611	9.2000e-004		0.0116	0.0116		0.0116	0.0116	0.0000	166.3925	166.3925	3.1900e-003	3.0500e-003	167.3813
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0560**	**0.4996**	**0.3601**	**3.0500e-003**		**0.0387**	**0.0387**		**0.0387**	**0.0387**	**0.0000**	**553.8518**	**553.8518**	**0.0106**	**0.0102**	**557.1430**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	33240	7.1830	0.0000	0.0000	7.1830
General Office Building	134400	29.0433	0.0000	0.0000	29.0433
General Office Building	53760	11.6173	0.0000	0.0000	11.6173
Mobile Home Park	732299	158.2469	0.0000	0.0000	158.2469
Motel	1.52308e+006	329.1304	0.0000	0.0000	329.1304

Parking Lot	36590.4	7.9070	0.0000	0.0000	7.9070
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	146000	31.5500	0.0000	0.0000	31.5500
Total		**574.6780**	**0.0000**	**0.0000**	**574.6780**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	32886	7.1065	0.0000	0.0000	7.1065
General Office Building	133305	28.8067	0.0000	0.0000	28.8067
General Office Building	53322	11.5227	0.0000	0.0000	11.5227
Mobile Home Park	716495	154.8317	0.0000	0.0000	154.8317
Motel	1.5049e+006	325.2037	0.0000	0.0000	325.2037
Parking Lot	36590.4	7.9070	0.0000	0.0000	7.9070
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	146000	31.5500	0.0000	0.0000	31.5500
Total		**566.9283**	**0.0000**	**0.0000**	**566.9283**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.5910	0.0942	1.0398	5.8000e-004		0.0122	0.0122		0.0122	0.0122	0.0000	97.3390	97.3390	3.4200e-003	1.7500e-003	97.9473
Unmitigated	10.0521	0.1770	11.4608	0.0190		1.4716	1.4716		1.4716	1.4716	139.4493	60.1226	199.5719	0.1303	0.0110	206.0974

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	0.2256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	8.4707	0.1654	10.4562	0.0189		1.4661	1.4661		1.4661	1.4661	139.4493	58.4830	197.9323	0.1287	0.0110	204.4182
Landscaping	0.0304	0.0116	1.0046	5.0000e-005		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003	0.0000	1.6396	1.6396	1.5900e-003	0.0000	1.6792
Total	**10.0521**	**0.1770**	**11.4608**	**0.0190**		**1.4716**	**1.4716**		**1.4716**	**1.4716**	**139.4493**	**60.1226**	**199.5719**	**0.1303**	**0.0110**	**206.0974**

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	0.2256					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.3253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	9.6700e-003	0.0826	0.0352	5.3000e-004		6.6800e-003	6.6800e-003		6.6800e-003	6.6800e-003	0.0000	95.6995	95.6995	1.8300e-003	1.7500e-003	96.2682
Landscaping	0.0304	0.0116	1.0046	5.0000e-005		5.5500e-003	5.5500e-003		5.5500e-003	5.5500e-003	0.0000	1.6396	1.6396	1.5900e-003	0.0000	1.6792
Total	**1.5910**	**0.0942**	**1.0398**	**5.8000e-004**		**0.0122**	**0.0122**		**0.0122**	**0.0122**	**0.0000**	**97.3390**	**97.3390**	**3.4200e-003**	**1.7500e-003**	**97.9473**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	74.1138	0.6006	0.0142	93.3553
Unmitigated	89.6073	0.7508	0.0177	113.6591

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.925 / 0	2.8962	0.0301	7.1000e-004	3.8618
General Office Building	2.48827 / 1.52507	11.4523	0.0811	1.9100e-003	14.0498
Mobile Home Park	8.79579 / 5.54517	40.8530	0.2866	6.7700e-003	50.0350
Motel	1.52201 / 0.169112	5.1715	0.0496	1.1700e-003	6.7603
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.2722	1.9300e-003	5.0000e-005	0.3340
Unrefrigerated Warehouse-No Rail	9.25 / 0	28.9621	0.3014	7.1200e-003	38.6183
Total		**89.6073**	**0.7508**	**0.0177**	**113.6591**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.74 / 0	2.3170	0.0241	5.7000e-004	3.0895
General Office Building	1.99062 / 1.43204	9.6708	0.0649	1.5300e-003	11.7488
Mobile Home Park	7.03663 / 5.20692	34.5329	0.2293	5.4100e-003	41.8785
Motel	1.2176 / 0.158796	4.1936	0.0397	9.4000e-004	5.4647

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0240270	0.2299	1.5400e-003	4.0000e-005	0.2793
Unrefrigerated Warehouse-No Rail	7.4 / 0	23.1697	0.2411	5.6900e-003	30.8946
Total		**74.1138**	**0.6006**	**0.0142**	**93.3553**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.8566	0.9371	0.0000	39.2842
Unmitigated	31.7133	1.8742	0.0000	78.5683

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	4.96	1.0068	0.0595	0.0000	2.4944

General Office Building	13.02	2.6429	0.1562	0.0000	6.5478
Mobile Home Park	62.1	12.6057	0.7450	0.0000	31.2302
Motel	32.85	6.6683	0.3941	0.0000	16.5203
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Unrefrigerated Warehouse-No Rail	37.6	7.6325	0.4511	0.0000	18.9091
Total		**31.7133**	**1.8742**	**0.0000**	**78.5683**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	2.48	0.5034	0.0298	0.0000	1.2472
General Office Building	6.51	1.3215	0.0781	0.0000	3.2739
Mobile Home Park	31.05	6.3029	0.3725	0.0000	15.6151
Motel	16.425	3.3341	0.1970	0.0000	8.2602
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	2.85	0.5785	0.0342	0.0000	1.4333
Unrefrigerated Warehouse-No Rail	18.8	3.8162	0.2255	0.0000	9.4546
Total		**15.8566**	**0.9371**	**0.0000**	**39.2842**

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

GB Cpaital Phase 1 2022 - San Diego County, Winter

GB Cpaital Phase 1 2022

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Mobile Home Park	135.00	Dwelling Unit	17.01	162,000.00	386
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Motel	60.00	Room	2.70	117,612.00	0
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	476.41	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	476.41
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	HO_TTP	39.60	0.00
tblVehicleTrips	HS_TTP	18.80	0.00
tblVehicleTrips	HW_TTP	41.60	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	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	215.4396	4.1634	266.1914	0.4626		35.8192	35.8192		35.8192	35.8192	3,749.1837	1,592.4341	5,341.6177	3.4793	0.2949	5,516.4807
Energy	0.3067	2.7375	1.9732	0.0167		0.2119	0.2119		0.2119	0.2119		3,345.2989	3,345.2989	0.0641	0.0613	3,365.1784
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**215.7462**	**6.9009**	**268.1646**	**0.4794**	**0.0000**	**36.0311**	**36.0311**	**0.0000**	**36.0311**	**36.0311**	**3,749.1837**	**4,937.7330**	**8,686.9167**	**3.5434**	**0.3562**	**8,881.6591**

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	9.0721	2.1442	12.0197	0.0135		0.2246	0.2246		0.2246	0.2246	0.0000	2,593.0223	2,593.0223	0.0687	0.0472	2,608.7975
Energy	0.3067	2.7375	1.9732	0.0167		0.2119	0.2119		0.2119	0.2119		3,345.2989	3,345.2989	0.0641	0.0613	3,365.1784
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**9.3788**	**4.8817**	**13.9929**	**0.0302**	**0.0000**	**0.4365**	**0.4365**	**0.0000**	**0.4365**	**0.4365**	**0.0000**	**5,938.3212**	**5,938.3212**	**0.1329**	**0.1085**	**5,973.9758**

	ROG	NOx	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	**95.65**	**29.26**	**94.78**	**93.70**	**0.00**	**98.79**	**98.79**	**0.00**	**98.79**	**98.79**	**100.00**	**-20.26**	**31.64**	**96.25**	**69.54**	**32.74**

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	0.3067	2.7375	1.9732	0.0167		0.2119	0.2119		0.2119	0.2119		3,345.2989	3,345.2989	0.0641	0.0613	3,365.1784
NaturalGas Unmitigated	0.3067	2.7375	1.9732	0.0167		0.2119	0.2119		0.2119	0.2119		3,345.2989	3,345.2989	0.0641	0.0613	3,365.1784

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 Light Industry	126.685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	221.26	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	553.151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	8542.68	0.0921	0.7873	0.3350	5.0300e-003		0.0637	0.0637		0.0637	0.0637		1,005.0209	1,005.0209	0.0193	0.0184	1,010.9933
Motel	18808.3	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No	183.014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.3067**	**2.7375**	**1.9732**	**0.0167**		**0.2119**	**0.2119**		**0.2119**	**0.2119**		**3,345.2989**	**3,345.2989**	**0.0641**	**0.0613**	**3,365.1784**

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 Light Industry	0.126685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	0.22126	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	0.553151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	8.54268	0.0921	0.7873	0.3350	5.0300e-003		0.0637	0.0637		0.0637	0.0637		1,005.0209	1,005.0209	0.0193	0.0184	1,010.9933

Motel	18.8083	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0.183014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.3067**	**2.7375**	**1.9732**	**0.0167**		**0.2119**	**0.2119**		**0.2119**	**0.2119**		**3,345.2989**	**3,345.2989**	**0.0641**	**0.0613**	**3,365.1784**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.0721	2.1442	12.0197	0.0135		0.2246	0.2246		0.2246	0.2246	0.0000	2,593.0223	2,593.0223	0.0687	0.0472	2,608.7975
Unmitigated	215.4396	4.1634	266.1914	0.4626		35.8192	35.8192		35.8192	35.8192	3,749.1837	1,592.4341	5,341.6177	3.4793	0.2949	5,516.4807

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	1.2364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	206.6033	4.0347	255.0294	0.4620		35.7576	35.7576		35.7576	35.7576	3,749.1837	1,572.3529	5,321.5366	3.4599	0.2949	5,495.9141
Landscaping	0.3379	0.1287	11.1621	5.9000e-004		0.0617	0.0617		0.0617	0.0617		20.0811	20.0811	0.0194		20.5666
Total	**215.4396**	**4.1634**	**266.1914**	**0.4626**		**35.8192**	**35.8192**		**35.8192**	**35.8192**	**3,749.1837**	**1,592.4341**	**5,341.6177**	**3.4793**	**0.2949**	**5,516.4807**

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	1.2364					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	7.2619					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.2359	2.0155	0.8577	0.0129		0.1630	0.1630		0.1630	0.1630	0.0000	2,572.9412	2,572.9412	0.0493	0.0472	2,588.2309
Landscaping	0.3379	0.1287	11.1621	5.9000e-004		0.0617	0.0617		0.0617	0.0617		20.0811	20.0811	0.0194		20.5666
Total	**9.0721**	**2.1442**	**12.0197**	**0.0135**		**0.2246**	**0.2246**		**0.2246**	**0.2246**	**0.0000**	**2,593.0223**	**2,593.0223**	**0.0687**	**0.0472**	**2,608.7975**

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

Operational Modeling
2025 CalEEMod Runs

Balance Plan 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2025 - San Diego County, Annual

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Balance Plan 2025 - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	1/10/2020	12/15/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	127.9020	127.9020	1.2000e-003	1.1500e-003	128.2752
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2951	0.0000	1.2951	0.0765	0.0000	3.2085
Water						0.0000	0.0000		0.0000	0.0000	0.6500	11.9599	12.6099	0.0668	1.5800e-003	14.7487
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.9451**	**139.8621**	**141.8072**	**0.1445**	**2.7300e-003**	**146.2327**

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	127.9020	127.9020	1.2000e-003	1.1500e-003	128.2752
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.6475	0.0000	0.6475	0.0383	0.0000	1.6043
Water						0.0000	0.0000		0.0000	0.0000	0.5200	10.5122	11.0322	0.0534	1.2600e-003	12.7432
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.1676**	**138.4144**	**139.5819**	**0.0929**	**2.4100e-003**	**142.6230**

	ROG	NOx	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**	**39.97**	**1.04**	**1.57**	**35.72**	**11.72**	**2.47**

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	12/16/2019	12/15/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	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	5	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Parking Lot	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Quality Restaurant	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

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	65.0893	65.0893	0.0000	0.0000	65.0893
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	65.0893	65.0893	0.0000	0.0000	65.0893
NaturalGas Mitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
NaturalGas Unmitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	14.4978	0.0000	0.0000	14.4978
Quality Restaurant	261225	50.5915	0.0000	0.0000	50.5915
Total		**65.0893**	**0.0000**	**0.0000**	**65.0893**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	14.4978	0.0000	0.0000	14.4978
Quality Restaurant	261225	50.5915	0.0000	0.0000	50.5915
Total		**65.0893**	**0.0000**	**0.0000**	**65.0893**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.0322	0.0534	1.2600e-003	12.7432
Unmitigated	12.6099	0.0668	1.5800e-003	14.7487

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.02636	6.5118	0.0000	0.0000	6.5118
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.04885 / 0.130778	6.0982	0.0668	1.5800e-003	8.2370
Total		**12.6099**	**0.0668**	**1.5800e-003**	**14.7487**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.84175	6.1145	0.0000	0.0000	6.1145
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.63908 / 0.1228	4.9176	0.0534	1.2600e-003	6.6287
Total		**11.0322**	**0.0534**	**1.2600e-003**	**12.7432**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6475	0.0383	0.0000	1.6043
Unmitigated	1.2951	0.0765	0.0000	3.2085

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.22	0.0447	2.6400e-003	0.0000	0.1106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.16	1.2504	0.0739	0.0000	3.0979
Total		**1.2951**	**0.0765**	**0.0000**	**3.2085**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.11	0.0223	1.3200e-003	0.0000	0.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.08	0.6252	0.0370	0.0000	1.5489
Total		**0.6475**	**0.0383**	**0.0000**	**1.6043**

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

Balance Plan 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2025 - San Diego County, Winter

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Balance Plan 2025 - San Diego County, Winter

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	1/10/2020	12/15/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

	ROG	NOx	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	12/16/2019	12/15/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	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	5	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Parking Lot	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Quality Restaurant	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

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	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
NaturalGas Unmitigated	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3224.84	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.22484	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Unmitigated	0.2762	1.0000e-005	1.4500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-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	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					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		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					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		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Bayshore Bikeway 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblAreaMitigation	UseLowVOCPaintParkingValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	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	tons/yr										MT/yr					
Area	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2893	6.2893	0.0000	0.0000	6.2893
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.2893**	**6.2893**	**0.0000**	**0.0000**	**6.2893**

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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2893	6.2893	0.0000	0.0000	6.2893
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**6.2893**	**6.2893**	**0.0000**	**0.0000**	**6.2893**

	ROG	NOx	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**

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	6.2893	6.2893	0.0000	0.0000	6.2893

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	6.2893	6.2893	0.0000	0.0000	6.2893
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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	32474	6.2893	0.0000	0.0000	6.2893
Total		**6.2893**	**0.0000**	**0.0000**	**6.2893**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	32474	6.2893	0.0000	0.0000	6.2893
Total		**6.2893**	**0.0000**	**0.0000**	**6.2893**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

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	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Bayshore Bikeway 2025 - San Diego County, Winter

Bayshore Bikeway 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.
Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblAreaMitigation	UseLowVOCPaintParkingValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

	ROG	NOx	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**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Unmitigated	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-004**

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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-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

City Program 2025 - San Diego County, Annual

City Program 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	3.50	Acre	3.50	152,460.00	0
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Trips and VMT - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation - Energy star appliances. Conservative reduction because CalEEMod won't work for High Turnover (Sit Down Restaurant) land use subtype

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	tons/yr										MT/yr					
Area	1.1418	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	1,526.0246	1,526.0246	0.0158	0.0151	1,530.9217
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	56.6710	0.0000	56.6710	3.3492	0.0000	140.4001
Water						0.0000	0.0000		0.0000	0.0000	2.9818	26.4294	29.4112	0.3063	7.2300e-003	39.2225
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**59.6528**	**1,552.4572**	**1,612.1100**	**3.6712**	**0.0223**	**1,710.5477**

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	1.1418	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	1,519.0125	1,519.0125	0.0158	0.0151	1,523.9096
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	28.3355	0.0000	28.3355	1.6746	0.0000	70.2000
Water						0.0000	0.0000		0.0000	0.0000	2.3854	21.5227	23.9082	0.2450	5.7900e-003	31.7572
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**30.7209**	**1,540.5385**	**1,571.2594**	**1.9354**	**0.0209**	**1,625.8703**

	ROG	NOx	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**	**48.50**	**0.77**	**2.53**	**47.28**	**6.45**	**4.95**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	694.9347	694.9347	0.0000	0.0000	694.9347
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	701.9467	701.9467	0.0000	0.0000	701.9467
NaturalGas Mitigated	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750
NaturalGas Unmitigated	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	599850	116.1732	0.0000	0.0000	116.1732
Hotel	2.82051e+006	546.2491	0.0000	0.0000	546.2491
Parking Lot	53361	10.3344	0.0000	0.0000	10.3344
Strip Mall	150720	29.1900	0.0000	0.0000	29.1900

Total		**701.9467**	**0.0000**	**0.0000**	**701.9467**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	599850	116.1732	0.0000	0.0000	116.1732
Hotel	2.78686e+006	539.7321	0.0000	0.0000	539.7321
Parking Lot	53361	10.3344	0.0000	0.0000	10.3344
Strip Mall	148164	28.6950	0.0000	0.0000	28.6950
Total		**694.9347**	**0.0000**	**0.0000**	**694.9347**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1418	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Unmitigated	1.1418	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-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	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Total	**1.1417**	**2.0000e-005**	**1.6600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	2.0000e-005	1.6600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Total	**1.1417**	**2.0000e-005**	**1.6600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.9082	0.2450	5.7900e-003	31.7572
Unmitigated	29.4112	0.3063	7.2300e-003	39.2225

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	4.70477 / 0.300305	14.0032	0.1533	3.6200e-003	18.9145
Hotel	3.80502 / 0.422779	11.7123	0.1240	2.9300e-003	15.6843
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.544791	3.6958	0.0290	6.8000e-004	4.6237

Total		**29.4112**	**0.3063**	**7.2300e-003**	**39.2225**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	3.76382 / 0.281986	11.2924	0.1226	2.9000e-003	15.2214
Hotel	3.04401 / 0.39699	9.4963	0.0992	2.3400e-003	12.6739
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.711096 / 0.511559	3.1195	0.0232	5.5000e-004	3.8619
Total		**23.9082**	**0.2450**	**5.7900e-003**	**31.7572**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.3355	1.6746	0.0000	70.2000
Unmitigated	56.6710	3.3492	0.0000	140.4001

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	184.45	37.4417	2.2127	0.0000	92.7602
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.6	2.5577	0.1512	0.0000	6.3366
Total		**56.6710**	**3.3492**	**0.0000**	**140.4001**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	92.225	18.7208	1.1064	0.0000	46.3801
Hotel	41.065	8.3358	0.4926	0.0000	20.6517
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.3	1.2788	0.0756	0.0000	3.1683
Total		**28.3355**	**1.6746**	**0.0000**	**70.2000**

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

City Program 2025 - San Diego County, Winter

City Program 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0
Parking Lot	3.50	Acre	3.50	152,460.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	6.2570	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5027**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1023**

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	6.2570	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5027**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1023**

	ROG	NOx	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**

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	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
NaturalGas Unmitigated	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601

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					
High Turnover (Sit Down Restaurant)	7405.18	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34830.1	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	73.3151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

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					
High Turnover (Sit Down Restaurant)	7.40518	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34.8301	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0733151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.2570	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Unmitigated	6.2570	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-003	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2570**	**1.7000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.7000e-003	1.7000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2570**	**1.7000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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

GB Capital Phase 1 2025 - San Diego County, Annual

GB Capital Phase 1 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0
Motel	60.00	Room	2.70	117,612.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Mobile Home Park	70.00	Dwelling Unit	8.82	84,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Energy Mitigation - Energy Star appliances. No appliances for parking lot or recreational swimming pool. Conservative because can't apply to unrefrigerated warehouse-no rail

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	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	tons/yr										MT/yr					
Area	5.6054	0.0918	5.9421	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1757	103.4827	0.0676	5.6900e-003	106.8663
Energy	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	920.4911	920.4911	9.0800e-003	8.6900e-003	923.3062
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.6439	0.0000	25.6439	1.5155	0.0000	63.5316
Water						0.0000	0.0000		0.0000	0.0000	5.9660	57.3326	63.2986	0.6128	0.0145	82.9295
Total	**5.6533**	**0.5222**	**6.2728**	**0.0125**	**0.0000**	**0.7961**	**0.7961**	**0.0000**	**0.7961**	**0.7961**	**103.9169**	**1,008.9994**	**1,112.9163**	**2.2049**	**0.0289**	**1,176.6336**

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	1.2182	0.0488	0.5386	3.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	50.4731	50.4731	1.7700e-003	9.1000e-004	50.7885
Energy	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	915.0193	915.0193	9.0800e-003	8.6900e-003	917.8345
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	12.8219	0.0000	12.8219	0.7578	0.0000	31.7658
Water						0.0000	0.0000		0.0000	0.0000	4.7728	47.2436	52.0164	0.4902	0.0116	67.7211
Total	**1.2661**	**0.4793**	**0.8693**	**2.9100e-003**	**0.0000**	**0.0394**	**0.0394**	**0.0000**	**0.0394**	**0.0394**	**17.5947**	**1,012.7360**	**1,030.3307**	**1.2588**	**0.0212**	**1,068.1098**

	ROG	NOx	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	**77.60**	**8.22**	**86.14**	**76.65**	**0.00**	**95.05**	**95.05**	**0.00**	**95.05**	**95.05**	**83.07**	**-0.37**	**7.42**	**42.91**	**26.59**	**9.22**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	441.2825	441.2825	0.0000	0.0000	441.2825

Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	446.7542	446.7542	0.0000	0.0000	446.7542
NaturalGas Mitigated	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520
NaturalGas Unmitigated	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
Mobile Home Park	1.61678e+006	8.7200e-003	0.0745	0.0317	4.8000e-004		6.0200e-003	6.0200e-003		6.0200e-003	6.0200e-003	0.0000	86.2776	86.2776	1.6500e-003	1.5800e-003	86.7903
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0479**	**0.4304**	**0.3307**	**2.6100e-003**		**0.0331**	**0.0331**		**0.0331**	**0.0331**	**0.0000**	**473.7369**	**473.7369**	**9.0800e-003**	**8.7000e-003**	**476.5520**

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Mobile Home Park	1.61678e+006	8.7200e-003	0.0745	0.0317	4.8000e-004		6.0200e-003	6.0200e-003		6.0200e-003	6.0200e-003	0.0000	86.2776	86.2776	1.6500e-003	1.5800e-003	86.7903
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0479**	**0.4304**	**0.3307**	**2.6100e-003**		**0.0331**	**0.0331**		**0.0331**	**0.0331**	**0.0000**	**473.7369**	**473.7369**	**9.0800e-003**	**8.7000e-003**	**476.5520**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	33240	6.4376	0.0000	0.0000	6.4376
General Office Building	134400	26.0293	0.0000	0.0000	26.0293
General Office Building	53760	10.4117	0.0000	0.0000	10.4117
Mobile Home Park	379711	73.5387	0.0000	0.0000	73.5387
Motel	1.52308e+006	294.9745	0.0000	0.0000	294.9745
Parking Lot	36590.4	7.0865	0.0000	0.0000	7.0865
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000

Unrefrigerated Warehouse-No Rail	146000	28.2759	0.0000	0.0000	28.2759
Total		**446.7542**	**0.0000**	**0.0000**	**446.7542**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	32886	6.3690	0.0000	0.0000	6.3690
General Office Building	133305	25.8172	0.0000	0.0000	25.8172
General Office Building	53322	10.3269	0.0000	0.0000	10.3269
Mobile Home Park	371516	71.9516	0.0000	0.0000	71.9516
Motel	1.5049e+006	291.4553	0.0000	0.0000	291.4553
Parking Lot	36590.4	7.0865	0.0000	0.0000	7.0865
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	146000	28.2759	0.0000	0.0000	28.2759
Total		**441.2824**	**0.0000**	**0.0000**	**441.2824**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.2182	0.0488	0.5386	3.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	50.4731	50.4731	1.7700e-003	9.1000e-004	50.7885
Unmitigated	5.6054	0.0918	5.9421	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1757	103.4827	0.0676	5.6900e-003	106.8663

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	0.1768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3922	0.0858	5.4217	9.8200e-003		0.7602	0.7602		0.7602	0.7602	72.3070	30.3245	102.6316	0.0667	5.6900e-003	105.9946
Landscaping	0.0157	5.9900e-003	0.5204	3.0000e-005		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	0.8512	0.8512	8.2000e-004	0.0000	0.8717
Total	**5.6054**	**0.0918**	**5.9421**	**9.8500e-003**		**0.7631**	**0.7631**		**0.7631**	**0.7631**	**72.3070**	**31.1757**	**103.4827**	**0.0676**	**5.6900e-003**	**106.8663**

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	0.1768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.0100e-003	0.0429	0.0182	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6219	49.6219	9.5000e-004	9.1000e-004	49.9168
Landscaping	0.0157	5.9900e-003	0.5204	3.0000e-005		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	0.8512	0.8512	8.2000e-004	0.0000	0.8717
Total	**1.2182**	**0.0488**	**0.5386**	**3.0000e-004**		**6.3500e-003**	**6.3500e-003**		**6.3500e-003**	**6.3500e-003**	**0.0000**	**50.4731**	**50.4731**	**1.7700e-003**	**9.1000e-004**	**50.7885**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	52.0164	0.4902	0.0116	67.7211
Unmitigated	63.2986	0.6128	0.0145	82.9295

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.925 / 0	2.6261	0.0301	7.1000e-004	3.5917
General Office Building	2.48827 / 1.52507	10.3458	0.0811	1.9100e-003	12.9433
Mobile Home Park	4.56078 / 2.87528	19.1349	0.1486	3.5100e-003	23.8959
Motel	1.52201 / 0.169112	4.6849	0.0496	1.1700e-003	6.2737
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.2459	1.9300e-003	5.0000e-005	0.3077
Unrefrigerated Warehouse-No Rail	9.25 / 0	26.2611	0.3014	7.1200e-003	35.9172
Total		**63.2986**	**0.6128**	**0.0145**	**82.9295**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.74 / 0	2.1009	0.0241	5.7000e-004	2.8734
General Office Building	1.99062 / 1.43204	8.7327	0.0649	1.5300e-003	10.8108
Mobile Home Park	3.64863 / 2.69988	16.1679	0.1189	2.8100e-003	19.9767
Motel	1.2176 / 0.158796	3.7985	0.0397	9.4000e-004	5.0696

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0240270	0.2076	1.5400e-003	4.0000e-005	0.2570
Unrefrigerated Warehouse-No Rail	7.4 / 0	21.0089	0.2411	5.6900e-003	28.7338
Total		**52.0164**	**0.4902**	**0.0116**	**67.7211**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.8219	0.7578	0.0000	31.7658
Unmitigated	25.6439	1.5155	0.0000	63.5316

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	4.96	1.0068	0.0595	0.0000	2.4944

General Office Building	13.02	2.6429	0.1562	0.0000	6.5478
Mobile Home Park	32.2	6.5363	0.3863	0.0000	16.1934
Motel	32.85	6.6683	0.3941	0.0000	16.5203
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Unrefrigerated Warehouse-No Rail	37.6	7.6325	0.4511	0.0000	18.9091
Total		**25.6439**	**1.5155**	**0.0000**	**63.5316**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	2.48	0.5034	0.0298	0.0000	1.2472
General Office Building	6.51	1.3215	0.0781	0.0000	3.2739
Mobile Home Park	16.1	3.2682	0.1931	0.0000	8.0967
Motel	16.425	3.3341	0.1970	0.0000	8.2602
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	2.85	0.5785	0.0342	0.0000	1.4333
Unrefrigerated Warehouse-No Rail	18.8	3.8162	0.2255	0.0000	9.4546
Total		**12.8219**	**0.7578**	**0.0000**	**31.7658**

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

GB Capital Phase 1 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0
Motel	60.00	Room	2.70	117,612.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Mobile Home Park	70.00	Dwelling Unit	8.82	84,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

GB Capital Phase 1 2025 - San Diego County, Winter

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00

tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	113.8637	2.1587	138.0194	0.2399		18.5730	18.5730		18.5730	18.5730	1,944.0212	825.7194	2,769.7405	1.8040	0.1529	2,860.4092
Energy	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**114.1260**	**4.5171**	**139.8313**	**0.2542**	**0.0000**	**18.7542**	**18.7542**	**0.0000**	**18.7542**	**18.7542**	**1,944.0212**	**3,687.1193**	**5,631.1405**	**1.8589**	**0.2054**	**5,738.8130**

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	6.8584	1.1116	6.2267	6.9800e-003		0.1166	0.1166		0.1166	0.1166	0.0000	1,344.5429	1,344.5429	0.0356	0.0245	1,352.7216
Energy	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**7.1206**	**3.4701**	**8.0386**	**0.0213**	**0.0000**	**0.2978**	**0.2978**	**0.0000**	**0.2978**	**0.2978**	**0.0000**	**4,205.9428**	**4,205.9428**	**0.0904**	**0.0769**	**4,231.1254**

	ROG	NOx	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	**93.76**	**23.18**	**94.25**	**91.62**	**0.00**	**98.41**	**98.41**	**0.00**	**98.41**	**98.41**	**100.00**	**-14.07**	**25.31**	**95.13**	**62.55**	**26.27**

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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.4

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	0	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	5	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Mobile Home Park	0.00	0.00	0.00		
Motel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Mobile Home Park	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Motel	9.50	7.30	7.30	19.00	62.00	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
General Office Building	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Mobile Home Park	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Motel	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Parking Lot	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Recreational Swimming Pool	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950
Unrefrigerated Warehouse-No Rail	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

GB Capital Phase 1 2025 - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
NaturalGas Unmitigated	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038

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 Light Industry	126.685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	221.26	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	553.151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	4429.54	0.0478	0.4082	0.1737	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.1220	521.1220	9.9900e-003	9.5500e-003	524.2187
Motel	18808.3	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	183.014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.2623**	**2.3584**	**1.8119**	**0.0143**		**0.1812**	**0.1812**		**0.1812**	**0.1812**		**2,861.4000**	**2,861.4000**	**0.0549**	**0.0525**	**2,878.4038**

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 Light Industry	0.126685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	0.22126	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	0.553151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	4.42954	0.0478	0.4082	0.1737	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.1220	521.1220	9.9900e-003	9.5500e-003	524.2187
Motel	18.8083	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0.183014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.2623**	**2.3584**	**1.8119**	**0.0143**		**0.1812**	**0.1812**		**0.1812**	**0.1812**		**2,861.4000**	**2,861.4000**	**0.0549**	**0.0525**	**2,878.4038**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.8584	1.1116	6.2267	6.9800e-003		0.1166	0.1166		0.1166	0.1166	0.0000	1,344.5429	1,344.5429	0.0356	0.0245	1,352.7216
Unmitigated	113.8637	2.1587	138.0194	0.2399		18.5730	18.5730		18.5730	18.5730	1,944.0212	825.7194	2,769.7405	1.8040	0.1529	2,860.4092

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	0.9690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	107.1277	2.0921	132.2374	0.2396		18.5410	18.5410		18.5410	18.5410	1,944.0212	815.2941	2,759.3153	1.7940	0.1529	2,849.7333
Landscaping	0.1744	0.0666	5.7820	3.1000e-004		0.0321	0.0321		0.0321	0.0321		10.4252	10.4252	0.0100		10.6759
Total	**113.8637**	**2.1587**	**138.0194**	**0.2399**		**18.5730**	**18.5730**		**18.5730**	**18.5730**	**1,944.0212**	**825.7194**	**2,769.7405**	**1.8040**	**0.1529**	**2,860.4092**

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	0.9690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1223	1.0451	0.4447	6.6700e-003		0.0845	0.0845		0.0845	0.0845	0.0000	1,334.1177	1,334.1177	0.0256	0.0245	1,342.0456
Landscaping	0.1744	0.0666	5.7820	3.1000e-004		0.0321	0.0321		0.0321	0.0321		10.4252	10.4252	0.0100		10.6759
Total	**6.8584**	**1.1116**	**6.2267**	**6.9800e-003**		**0.1166**	**0.1166**		**0.1166**	**0.1166**	**0.0000**	**1,344.5429**	**1,344.5429**	**0.0356**	**0.0245**	**1,352.7216**

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

GB Capital Phase 2 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	463.00	Room	15.43	672,276.00	0
Strip Mall	16.50	1000sqft	0.38	16,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Energy Mitigation - Energy Star Appliances

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	tons/yr										MT/yr					
Area	3.1693	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-003
Energy	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	3,822.2246	3,822.2246	0.0402	0.0384	3,834.6800
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Waste						0.0000	0.0000		0.0000	0.0000	54.9720	0.0000	54.9720	3.2488	0.0000	136.1908
Water						0.0000	0.0000		0.0000	0.0000	4.1138	37.1197	41.2335	0.4225	9.9800e-003	54.7699
Total	**3.3811**	**1.9254**	**1.6217**	**0.0116**	**0.0000**	**0.1464**	**0.1464**	**0.0000**	**0.1464**	**0.1464**	**59.0858**	**3,859.3528**	**3,918.4386**	**3.7115**	**0.0484**	**4,025.6498**

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	3.1693	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-003
Energy	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	3,801.4280	3,801.4280	0.0402	0.0384	3,813.8835
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	27.4860	0.0000	27.4860	1.6244	0.0000	68.0954
Water						0.0000	0.0000		0.0000	0.0000	3.2911	30.3101	33.6011	0.3380	7.9800e-003	44.4302
Total	**3.3811**	**1.9254**	**1.6217**	**0.0116**	**0.0000**	**0.1464**	**0.1464**	**0.0000**	**0.1464**	**0.1464**	**30.7771**	**3,831.7467**	**3,862.5237**	**2.0026**	**0.0464**	**3,926.4182**

	ROG	NOx	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**	**47.91**	**0.72**	**1.43**	**46.04**	**4.13**	**2.46**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1,705.4286	1,705.4286	0.0000	0.0000	1,705.4286
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,726.2252	1,726.2252	0.0000	0.0000	1,726.2252
NaturalGas Mitigated	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549
NaturalGas Unmitigated	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549

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					
Hotel	3.92408e+007	0.2116	1.9236	1.6158	0.0115		0.1462	0.1462		0.1462	0.1462	0.0000	2,094.0359	2,094.0359	0.0401	0.0384	2,106.4797
Strip Mall	36795	2.0000e-004	1.8000e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9635	1.9635	4.0000e-005	4.0000e-005	1.9752
Total		**0.2118**	**1.9254**	**1.6173**	**0.0116**		**0.1463**	**0.1463**		**0.1463**	**0.1463**	**0.0000**	**2,095.9994**	**2,095.9994**	**0.0402**	**0.0384**	**2,108.4549**

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					
Hotel	3.92408e+007	0.2116	1.9236	1.6158	0.0115		0.1462	0.1462		0.1462	0.1462	0.0000	2,094.0359	2,094.0359	0.0401	0.0384	2,106.4797
Strip Mall	36795	2.0000e-004	1.8000e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9635	1.9635	4.0000e-005	4.0000e-005	1.9752
Total		**0.2118**	**1.9254**	**1.6173**	**0.0116**		**0.1463**	**0.1463**		**0.1463**	**0.1463**	**0.0000**	**2,095.9994**	**2,095.9994**	**0.0402**	**0.0384**	**2,108.4549**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	8.70597e+006	1,686.0889	0.0000	0.0000	1,686.0889
Strip Mall	207240	40.1362	0.0000	0.0000	40.1362
Total		**1,726.2252**	**0.0000**	**0.0000**	**1,726.2252**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	8.60211e+006	1,665.9731	0.0000	0.0000	1,665.9731
Strip Mall	203726	39.4556	0.0000	0.0000	39.4556
Total		**1,705.4286**	**0.0000**	**0.0000**	**1,705.4286**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1693	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-003
Unmitigated	3.1693	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-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	0.4789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-003
Total	**3.1693**	**4.0000e-005**	**4.3900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5700e-003**	**8.5700e-003**	**2.0000e-005**	**0.0000**	**9.1300e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3900e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1300e-003
Total	**3.1693**	**4.0000e-005**	**4.3900e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5700e-003**	**8.5700e-003**	**2.0000e-005**	**0.0000**	**9.1300e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	33.6011	0.3380	7.9800e-003	44.4302
Unmitigated	41.2335	0.4225	9.9800e-003	54.7699

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	11.7448 / 1.30498	36.1518	0.3827	9.0400e-003	48.4123
Strip Mall	1.2222 / 0.749088	5.0817	0.0398	9.4000e-004	6.3575
Total		**41.2335**	**0.4225**	**9.9800e-003**	**54.7699**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	9.39585 / 1.22538	29.3118	0.3062	7.2300e-003	39.1202
Strip Mall	0.977757 / 0.703394	4.2894	0.0319	7.5000e-004	5.3101
Total		**33.6011**	**0.3380**	**7.9800e-003**	**44.4302**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.4860	1.6244	0.0000	68.0954
Unmitigated	54.9720	3.2488	0.0000	136.1908

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	253.49	51.4562	3.0410	0.0000	127.4805
Strip Mall	17.32	3.5158	0.2078	0.0000	8.7103
Total		**54.9720**	**3.2488**	**0.0000**	**136.1908**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Hotel	126.745	25.7281	1.5205	0.0000	63.7403
Strip Mall	8.66	1.7579	0.1039	0.0000	4.3551
Total		**27.4860**	**1.6244**	**0.0000**	**68.0954**

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

GB Capital Phase 2 2025 - San Diego County, Winter

GB Capital Phase 2 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	463.00	Room	15.43	672,276.00	0
Strip Mall	16.50	1000sqft	0.38	16,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.
Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	17.3683	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118
Energy	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Total	**18.5288**	**10.5504**	**8.9108**	**0.0633**	**0.0000**	**0.8020**	**0.8020**	**0.0000**	**0.8020**	**0.8020**		**12,660.0711**	**12,660.0711**	**0.2429**	**0.2321**	**12,735.3098**

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	17.3683	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118
Energy	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**18.5288**	**10.5504**	**8.9108**	**0.0633**	**0.0000**	**0.8020**	**0.8020**	**0.0000**	**0.8020**	**0.8020**		**12,660.0711**	**12,660.0711**	**0.2429**	**0.2321**	**12,735.3098**

	ROG	NOx	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**

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	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
NaturalGas Unmitigated	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980

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					
Hotel	107509	1.1594	10.5401	8.8537	0.0632		0.8011	0.8011		0.8011	0.8011		12,648.1064	12,648.1064	0.2424	0.2319	12,723.2678
Strip Mall	100.808	1.0900e-003	9.8800e-003	8.3000e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8598	11.8598	2.3000e-004	2.2000e-004	11.9303
Total		**1.1605**	**10.5500**	**8.8620**	**0.0633**		**0.8018**	**0.8018**		**0.8018**	**0.8018**		**12,659.9662**	**12,659.9662**	**0.2427**	**0.2321**	**12,735.1981**

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					
Hotel	107.509	1.1594	10.5401	8.8537	0.0632		0.8011	0.8011		0.8011	0.8011		12,648.1064	12,648.1064	0.2424	0.2319	12,723.2678
Strip Mall	0.100808	1.0900e-003	9.8800e-003	8.3000e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8598	11.8598	2.3000e-004	2.2000e-004	11.9303
Total		**1.1605**	**10.5500**	**8.8620**	**0.0633**		**0.8018**	**0.8018**		**0.8018**	**0.8018**		**12,659.9662**	**12,659.9662**	**0.2427**	**0.2321**	**12,735.1981**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	17.3683	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118
Unmitigated	17.3683	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118

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	2.6240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-003	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118
Total	**17.3683**	**4.4000e-004**	**0.0488**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1049**	**0.1049**	**2.7000e-004**		**0.1118**

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	2.6240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.5000e-003	4.4000e-004	0.0488	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1118
Total	**17.3683**	**4.4000e-004**	**0.0488**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1049**	**0.1049**	**2.7000e-004**		**0.1118**

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

Granger Hall 2025

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Water Mitigation - Low-water plantings and drip irrigation

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	11/13/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	89.95	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.0311	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	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	113.4042	113.4042	1.2000e-003	1.1500e-003	113.7775
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2504	0.0000	1.2504	0.0739	0.0000	3.0979
Water						0.0000	0.0000		0.0000	0.0000	0.6500	5.4482	6.0982	0.0668	1.5800e-003	8.2370
Total	**0.0374**	**0.0577**	**0.0485**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.9004**	**118.8525**	**120.7529**	**0.1419**	**2.7300e-003**	**125.1124**

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	0.0311	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	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	113.4042	113.4042	1.2000e-003	1.1500e-003	113.7775
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.6252	0.0000	0.6252	0.0370	0.0000	1.5489
Water						0.0000	0.0000		0.0000	0.0000	0.6500	5.4310	6.0810	0.0668	1.5800e-003	8.2198
Total	**0.0374**	**0.0577**	**0.0485**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.2752**	**118.8353**	**120.1105**	**0.1049**	**2.7300e-003**	**123.5463**

	ROG	NOx	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**	**32.90**	**0.01**	**0.53**	**26.05**	**0.00**	**1.25**

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	10/31/2019	10/30/2019	5	0	

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	0	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

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	3	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

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	50.5915	50.5915	0.0000	0.0000	50.5915
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	50.5915	50.5915	0.0000	0.0000	50.5915
NaturalGas Mitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
NaturalGas Unmitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859

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					
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

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					
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	261225	50.5915	0.0000	0.0000	50.5915
Total		**50.5915**	**0.0000**	**0.0000**	**50.5915**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Quality Restaurant	261225	50.5915	0.0000	0.0000	50.5915
Total		**50.5915**	**0.0000**	**0.0000**	**50.5915**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0311	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	0.0311	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	4.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0264					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	**0.0311**	**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	4.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0264					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	**0.0311**	**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

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.0810	0.0668	1.5800e-003	8.2198
Unmitigated	6.0982	0.0668	1.5800e-003	8.2370

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.04885 / 0.130778	6.0982	0.0668	1.5800e-003	8.2370
Total		**6.0982**	**0.0668**	**1.5800e-003**	**8.2370**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Quality Restaurant	2.04885 / 0.1228	6.0810	0.0668	1.5800e-003	8.2198
Total		**6.0810**	**0.0668**	**1.5800e-003**	**8.2198**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6252	0.0370	0.0000	1.5489
Unmitigated	1.2504	0.0739	0.0000	3.0979

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	6.16	1.2504	0.0739	0.0000	3.0979
Total		**1.2504**	**0.0739**	**0.0000**	**3.0979**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Quality Restaurant	3.08	0.6252	0.0370	0.0000	1.5489
Total		**0.6252**	**0.0370**	**0.0000**	**1.5489**

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

Granger Hall 2025

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2025
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	426.97	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Interpolated SDG&E's CO2e EF based on (1) a 2017 EF (535.7 lbs CO2e/MWh) (2019 Electric Procurement Revenue Require Forecasts and GHG-Related Forecasts, November 2018), and (2) 60% RPS in 2030 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Water Mitigation - Low-water plantings and drip irrigation

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	11/13/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	426.97
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	8.00	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	89.95	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.3077	0.0000	0.0000	0.2830	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.3077**	**0.0000**	**0.0000**	**0.2830**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.3077	0.0000	0.0000	0.2830	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.3077**	**0.0000**	**0.0000**	**0.2830**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	0.1702	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2050**	**0.3162**	**0.2663**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3939**	**379.3939**	**7.2700e-003**	**6.9600e-003**	**381.6485**

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	0.1702	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2050**	**0.3162**	**0.2663**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3939**	**379.3939**	**7.2700e-003**	**6.9600e-003**	**381.6485**

	ROG	NOx	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	10/31/2019	10/30/2019	5	0	

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	0	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

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	3	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Quality Restaurant	0.609162	0.038894	0.178600	0.101308	0.013823	0.005356	0.016956	0.024628	0.001928	0.001823	0.005807	0.000764	0.000950

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	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
NaturalGas Unmitigated	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470

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					
Quality Restaurant	3224.84	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

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					
Quality Restaurant	3.22484	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1702	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-003
Unmitigated	0.1702	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-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	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1445					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-003
Total	**0.1702**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4800e-003**	**1.4800e-003**	**0.0000**		**1.5700e-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	0.0257					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1445					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.0000e-005	1.0000e-005	6.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.4800e-003	1.4800e-003	0.0000		1.5700e-003
Total	**0.1702**	**1.0000e-005**	**6.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.4800e-003**	**1.4800e-003**	**0.0000**		**1.5700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Operational Modeling
2050 CalEEMod Runs

Balance Plan 2050

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2050 - San Diego County, Annual

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation -

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Trips and VMT - Operations only.

Balance Plan 2050 - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	1.2951	0.0000	1.2951	0.0765	0.0000	3.2085
Water						0.0000	0.0000		0.0000	0.0000	0.6500	0.0000	0.6500	0.0668	1.5800e-003	2.7888
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.9451**	**62.8129**	**64.7580**	**0.1445**	**2.7300e-003**	**69.1835**

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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Energy	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.6475	0.0000	0.6475	0.0383	0.0000	1.6043
Water						0.0000	0.0000		0.0000	0.0000	0.5200	0.0000	0.5200	0.0534	1.2600e-003	2.2311
Total	**0.0567**	**0.0577**	**0.0486**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**1.1676**	**62.8129**	**63.9805**	**0.0929**	**2.4100e-003**	**67.0215**

	ROG	NOx	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**	**39.97**	**0.00**	**1.20**	**35.72**	**11.72**	**3.13**

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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Parking Lot	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Quality Restaurant	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

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	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
NaturalGas Unmitigated	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.17707e+006	6.3500e-003	0.0577	0.0485	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.8127	62.8127	1.2000e-003	1.1500e-003	63.1859
Total		**6.3500e-003**	**0.0577**	**0.0485**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.8127**	**62.8127**	**1.2000e-003**	**1.1500e-003**	**63.1859**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	261225	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	74857.9	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	261225	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

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Unmitigated	0.0504	0.0000	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

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	9.1500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0412					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	1.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.5000e-004	2.5000e-004	0.0000	0.0000	2.7000e-004
Total	**0.0504**	**0.0000**	**1.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.5000e-004**	**2.5000e-004**	**0.0000**	**0.0000**	**2.7000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.5200	0.0534	1.2600e-003	2.2311
Unmitigated	0.6500	0.0668	1.5800e-003	2.7888

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 3.02636	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	2.04885 / 0.130778	0.6500	0.0668	1.5800e-003	2.7888
Total		**0.6500**	**0.0668**	**1.5800e-003**	**2.7888**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 2.84175	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	1.63908 / 0.1228	0.5200	0.0534	1.2600e-003	2.2311
Total		**0.5200**	**0.0534**	**1.2600e-003**	**2.2311**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6475	0.0383	0.0000	1.6043
Unmitigated	1.2951	0.0765	0.0000	3.2085

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.22	0.0447	2.6400e-003	0.0000	0.1106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	6.16	1.2504	0.0739	0.0000	3.0979
Total		**1.2951**	**0.0765**	**0.0000**	**3.2085**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.11	0.0223	1.3200e-003	0.0000	0.0553
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.08	0.6252	0.0370	0.0000	1.5489
Total		**0.6475**	**0.0383**	**0.0000**	**1.6043**

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

Balance Plan 2050

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	4.91	Acre	4.91	213,879.60	0
City Park	2.54	Acre	2.54	110,642.40	0
Quality Restaurant	6.75	1000sqft	0.15	6,750.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Balance Plan 2050 - San Diego County, Winter

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation -

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Trips and VMT - Operations only.

Balance Plan 2050 - San Diego County, Winter

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	94.36	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	72.16	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	89.95	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	0.2762	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

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	0.2762	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Energy	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.3110**	**0.3162**	**0.2670**	**1.9000e-003**	**0.0000**	**0.0240**	**0.0240**	**0.0000**	**0.0240**	**0.0240**		**379.3955**	**379.3955**	**7.2800e-003**	**6.9600e-003**	**381.6503**

	ROG	NOx	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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 4.91

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	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Quality Restaurant	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Quality Restaurant	9.50	7.30	7.30	12.00	69.00	19.00	38	18	44

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Parking Lot	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Quality Restaurant	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

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	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
NaturalGas Unmitigated	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3224.84	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Quality Restaurant	3.22484	0.0348	0.3162	0.2656	1.9000e-003		0.0240	0.0240		0.0240	0.0240		379.3924	379.3924	7.2700e-003	6.9600e-003	381.6470
Total		**0.0348**	**0.3162**	**0.2656**	**1.9000e-003**		**0.0240**	**0.0240**		**0.0240**	**0.0240**		**379.3924**	**379.3924**	**7.2700e-003**	**6.9600e-003**	**381.6470**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2762	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Unmitigated	0.2762	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-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	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0502					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2259					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.3000e-004	1.0000e-005	1.4400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		3.1100e-003	3.1100e-003	1.0000e-005		3.3100e-003
Total	**0.2762**	**1.0000e-005**	**1.4400e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**		**3.1100e-003**	**3.1100e-003**	**1.0000e-005**		**3.3100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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

Bayshore Bikeway 2050

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Trips and VMT - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0

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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.9300e-003**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

	ROG	NOx	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**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	32474	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			
Parking Lot	32474	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

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	7.9300e-003	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

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	1.9400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.0000e-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	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

Total	**7.9400e-003**	**0.0000**	**2.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**4.0000e-005**	**4.0000e-005**	**0.0000**	**0.0000**	**4.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Bayshore Bikeway 2050

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	2.13	Acre	2.13	92,782.80	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Trips and VMT - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0

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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**	**0.0000**	**5.0000e-004**

	ROG	NOx	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**

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					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Unmitigated	0.0435	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004
Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-004**

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	0.0106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0329					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-005	0.0000	2.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		4.7000e-004	4.7000e-004	0.0000		5.0000e-004

Total	**0.0435**	**0.0000**	**2.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**4.7000e-004**	**4.7000e-004**	**0.0000**		**5.0000e-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

City Program 2050 - San Diego County, Annual

City Program 2050

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	3.50	Acre	3.50	152,460.00	0
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Trips and VMT - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of only NG hearths

Energy Mitigation - Energy star appliances. Conservative reduction because CalEEMod won't work for High Turnover (Sit Down Restaurant) land use subtype

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	0.00

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**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

	ROG	NOx	CO	SO2	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

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	1.1418	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	56.6710	0.0000	56.6710	3.3492	0.0000	140.4001
Water						0.0000	0.0000		0.0000	0.0000	2.9818	0.0000	2.9818	0.3063	7.2300e-003	12.7931
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**59.6528**	**824.0811**	**883.7339**	**3.6712**	**0.0223**	**982.1715**

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	1.1418	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Energy	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	28.3355	0.0000	28.3355	1.6746	0.0000	70.2000
Water						0.0000	0.0000		0.0000	0.0000	2.3854	0.0000	2.3854	0.2450	5.7900e-003	10.2345
Total	**1.2250**	**0.7570**	**0.6375**	**4.5400e-003**	**0.0000**	**0.0575**	**0.0575**	**0.0000**	**0.0575**	**0.0575**	**30.7209**	**824.0811**	**854.8020**	**1.9354**	**0.0209**	**909.4129**

	ROG	NOx	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**	**48.50**	**0.00**	**3.27**	**47.28**	**6.45**	**7.41**

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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 3.5

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73

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	0	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Hotel	9.50	7.30	7.30	19.40	61.60	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Hotel	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Parking Lot	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Strip Mall	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750
NaturalGas Unmitigated	0.0833	0.7570	0.6359	4.5400e-003		0.0575	0.0575		0.0575	0.0575	0.0000	824.0779	824.0779	0.0158	0.0151	828.9750

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

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					
High Turnover (Sit Down Restaurant)	2.70289e+006	0.0146	0.1325	0.1113	7.9000e-004		0.0101	0.0101		0.0101	0.0101	0.0000	144.2365	144.2365	2.7600e-003	2.6400e-003	145.0936
Hotel	1.2713e+007	0.0686	0.6232	0.5235	3.7400e-003		0.0474	0.0474		0.0474	0.0474	0.0000	678.4134	678.4134	0.0130	0.0124	682.4448
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	26760	1.4000e-004	1.3100e-003	1.1000e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	1.4280	1.4280	3.0000e-005	3.0000e-005	1.4365
Total		**0.0833**	**0.7570**	**0.6359**	**4.5400e-003**		**0.0575**	**0.0575**		**0.0575**	**0.0575**	**0.0000**	**824.0779**	**824.0779**	**0.0158**	**0.0151**	**828.9750**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	599850	0.0000	0.0000	0.0000	0.0000
Hotel	2.82051e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	53361	0.0000	0.0000	0.0000	0.0000
Strip Mall	150720	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			
High Turnover (Sit Down Restaurant)	599850	0.0000	0.0000	0.0000	0.0000
Hotel	2.78686e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	53361	0.0000	0.0000	0.0000	0.0000
Strip Mall	148164	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

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.1418	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Unmitigated	1.1418	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-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	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Total	**1.1417**	**1.0000e-005**	**1.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4400e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1737					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9679					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.6500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	3.2300e-003	3.2300e-003	1.0000e-005	0.0000	3.4400e-003
Total	**1.1417**	**1.0000e-005**	**1.6500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**3.2300e-003**	**3.2300e-003**	**1.0000e-005**	**0.0000**	**3.4400e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.3854	0.2450	5.7900e-003	10.2345
Unmitigated	2.9818	0.3063	7.2300e-003	12.7931

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	4.70477 / 0.300305	1.4926	0.1533	3.6200e-003	6.4040
Hotel	3.80502 / 0.422779	1.2072	0.1240	2.9300e-003	5.1792
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.88887 / 0.544791	0.2820	0.0290	6.8000e-004	1.2099
Total		**2.9818**	**0.3063**	**7.2300e-003**	**12.7931**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	3.76382 / 0.281986	1.1941	0.1226	2.9000e-003	5.1232
Hotel	3.04401 / 0.39699	0.9657	0.0992	2.3400e-003	4.1434
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.711096 / 0.511559	0.2256	0.0232	5.5000e-004	0.9679
Total		**2.3854**	**0.2450**	**5.7900e-003**	**10.2345**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.3355	1.6746	0.0000	70.2000
Unmitigated	56.6710	3.3492	0.0000	140.4001

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	184.45	37.4417	2.2127	0.0000	92.7602
Hotel	82.13	16.6717	0.9853	0.0000	41.3033
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	12.6	2.5577	0.1512	0.0000	6.3366
Total		**56.6710**	**3.3492**	**0.0000**	**140.4001**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	92.225	18.7208	1.1064	0.0000	46.3801
Hotel	41.065	8.3358	0.4926	0.0000	20.6517
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	6.3	1.2788	0.0756	0.0000	3.1683
Total		**28.3355**	**1.6746**	**0.0000**	**70.2000**

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

City Program 2050 - San Diego County, Winter

City Program 2050

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.50	1000sqft	0.36	15,500.00	0
Hotel	150.00	Room	5.00	217,800.00	0
Strip Mall	12.00	1000sqft	0.28	12,000.00	0
Parking Lot	3.50	Acre	3.50	152,460.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Off-road Equipment - Operation only.

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Energy Use -

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Area Mitigation - Mitigation of only NG hearths

Trips and VMT - Operation only.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	158.37	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	131.84	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	127.15	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	6.2570	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5026**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1022**

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	6.2570	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Energy	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**6.7133**	**4.1481**	**3.5026**	**0.0249**	**0.0000**	**0.3153**	**0.3153**	**0.0000**	**0.3153**	**0.3153**		**4,977.5210**	**4,977.5210**	**0.0955**	**0.0913**	**5,007.1022**

	ROG	NOx	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**

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	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601
NaturalGas Unmitigated	0.4563	4.1479	3.4842	0.0249		0.3152	0.3152		0.3152	0.3152		4,977.4814	4,977.4814	0.0954	0.0913	5,007.0601

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					
High Turnover (Sit Down Restaurant)	7405.18	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34830.1	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	73.3151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

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					
High Turnover (Sit Down Restaurant)	7.40518	0.0799	0.7260	0.6098	4.3600e-003		0.0552	0.0552		0.0552	0.0552		871.1974	871.1974	0.0167	0.0160	876.3745
Hotel	34.8301	0.3756	3.4147	2.8684	0.0205		0.2595	0.2595		0.2595	0.2595		4,097.6587	4,097.6587	0.0785	0.0751	4,122.0090
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.0733151	7.9000e-004	7.1900e-003	6.0400e-003	4.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004		8.6253	8.6253	1.7000e-004	1.6000e-004	8.6766
Total		**0.4563**	**4.1479**	**3.4842**	**0.0249**		**0.3153**	**0.3153**		**0.3153**	**0.3153**		**4,977.4814**	**4,977.4814**	**0.0954**	**0.0913**	**5,007.0601**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.2570	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Unmitigated	6.2570	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6800e-003	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2570**	**1.6000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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	0.9519					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3034					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.6800e-003	1.6000e-004	0.0184	0.0000		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005		0.0396	0.0396	1.0000e-004		0.0422
Total	**6.2570**	**1.6000e-004**	**0.0184**	**0.0000**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**		**0.0396**	**0.0396**	**1.0000e-004**		**0.0422**

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

GB Capital Phase 1 2050

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0
Motel	60.00	Room	2.70	117,612.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Mobile Home Park	70.00	Dwelling Unit	8.82	84,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Energy Mitigation - Energy Star appliances. No appliances for parking lot or recreational swimming pool. Conservative because can't apply to unrefrigerated warehouse-no rail

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00
tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00

tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	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	tons/yr										MT/yr					
Area	5.6053	0.0918	5.9403	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1757	103.4827	0.0675	5.6900e-003	106.8661
Energy	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	25.6439	0.0000	25.6439	1.5155	0.0000	63.5316
Water						0.0000	0.0000		0.0000	0.0000	5.9660	0.0000	5.9660	0.6128	0.0145	25.5969
Total	**5.6532**	**0.5222**	**6.2710**	**0.0125**	**0.0000**	**0.7961**	**0.7961**	**0.0000**	**0.7961**	**0.7961**	**103.9169**	**504.9126**	**608.8295**	**2.2049**	**0.0289**	**672.5466**

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	1.2181	0.0488	0.5368	3.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	50.4731	50.4731	1.7600e-003	9.1000e-004	50.7883
Energy	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	12.8219	0.0000	12.8219	0.7578	0.0000	31.7658
Water						0.0000	0.0000		0.0000	0.0000	4.7728	0.0000	4.7728	0.4902	0.0116	20.4775
Total	**1.2660**	**0.4793**	**0.8675**	**2.9100e-003**	**0.0000**	**0.0394**	**0.0394**	**0.0000**	**0.0394**	**0.0394**	**17.5947**	**524.2100**	**541.8047**	**1.2588**	**0.0212**	**579.5837**

	ROG	NOx	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	**77.61**	**8.22**	**86.17**	**76.65**	**0.00**	**95.05**	**95.05**	**0.00**	**95.05**	**95.05**	**83.07**	**-3.82**	**11.01**	**42.91**	**26.59**	**13.82**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000
NaturalGas Mitigated	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520
NaturalGas Unmitigated	0.0479	0.4304	0.3307	2.6100e-003		0.0331	0.0331		0.0331	0.0331	0.0000	473.7369	473.7369	9.0800e-003	8.6900e-003	476.5520

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
Mobile Home Park	1.61678e+006	8.7200e-003	0.0745	0.0317	4.8000e-004		6.0200e-003	6.0200e-003		6.0200e-003	6.0200e-003	0.0000	86.2776	86.2776	1.6500e-003	1.5800e-003	86.7903
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0479**	**0.4304**	**0.3307**	**2.6100e-003**		**0.0331**	**0.0331**		**0.0331**	**0.0331**	**0.0000**	**473.7369**	**473.7369**	**9.0800e-003**	**8.7000e-003**	**476.5520**

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 Light Industry	46240	2.5000e-004	2.2700e-003	1.9000e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	2.4675	2.4675	5.0000e-005	5.0000e-005	2.4822
General Office Building	80760	4.4000e-004	3.9600e-003	3.3300e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.3097	4.3097	8.0000e-005	8.0000e-005	4.3353
General Office Building	201900	1.0900e-003	9.9000e-003	8.3100e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004	0.0000	10.7742	10.7742	2.1000e-004	2.0000e-004	10.8382
Mobile Home Park	1.61678e+006	8.7200e-003	0.0745	0.0317	4.8000e-004		6.0200e-003	6.0200e-003		6.0200e-003	6.0200e-003	0.0000	86.2776	86.2776	1.6500e-003	1.5800e-003	86.7903
Motel	6.86501e+006	0.0370	0.3365	0.2827	2.0200e-003		0.0256	0.0256		0.0256	0.0256	0.0000	366.3432	366.3432	7.0200e-003	6.7200e-003	368.5202
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	66800	3.6000e-004	3.2700e-003	2.7500e-003	2.0000e-005		2.5000e-004	2.5000e-004		2.5000e-004	2.5000e-004	0.0000	3.5647	3.5647	7.0000e-005	7.0000e-005	3.5859
Total		**0.0479**	**0.4304**	**0.3307**	**2.6100e-003**		**0.0331**	**0.0331**		**0.0331**	**0.0331**	**0.0000**	**473.7369**	**473.7369**	**9.0800e-003**	**8.7000e-003**	**476.5520**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	33240	0.0000	0.0000	0.0000	0.0000
General Office Building	134400	0.0000	0.0000	0.0000	0.0000
General Office Building	53760	0.0000	0.0000	0.0000	0.0000
Mobile Home Park	379711	0.0000	0.0000	0.0000	0.0000
Motel	1.52308e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	36590.4	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000

Unrefrigerated Warehouse-No Rail	146000	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			
General Light Industry	32886	0.0000	0.0000	0.0000	0.0000
General Office Building	133305	0.0000	0.0000	0.0000	0.0000
General Office Building	53322	0.0000	0.0000	0.0000	0.0000
Mobile Home Park	371516	0.0000	0.0000	0.0000	0.0000
Motel	1.5049e+006	0.0000	0.0000	0.0000	0.0000
Parking Lot	36590.4	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	146000	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

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.2181	0.0488	0.5368	3.0000e-004		6.3500e-003	6.3500e-003		6.3500e-003	6.3500e-003	0.0000	50.4731	50.4731	1.7600e-003	9.1000e-004	50.7883
Unmitigated	5.6053	0.0918	5.9403	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1757	103.4827	0.0675	5.6900e-003	106.8661

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	0.1768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3922	0.0858	5.4217	9.8200e-003		0.7602	0.7602		0.7602	0.7602	72.3070	30.3245	102.6316	0.0667	5.6900e-003	105.9946
Landscaping	0.0156	5.9800e-003	0.5186	3.0000e-005		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	0.8512	0.8512	8.1000e-004	0.0000	0.8715
Total	**5.6053**	**0.0918**	**5.9403**	**9.8500e-003**		**0.7631**	**0.7631**		**0.7631**	**0.7631**	**72.3070**	**31.1757**	**103.4827**	**0.0675**	**5.6900e-003**	**106.8662**

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	0.1768					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0207					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.0100e-003	0.0429	0.0182	2.7000e-004		3.4600e-003	3.4600e-003		3.4600e-003	3.4600e-003	0.0000	49.6219	49.6219	9.5000e-004	9.1000e-004	49.9168
Landscaping	0.0156	5.9800e-003	0.5186	3.0000e-005		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	0.8512	0.8512	8.1000e-004	0.0000	0.8715
Total	**1.2181**	**0.0488**	**0.5368**	**3.0000e-004**		**6.3500e-003**	**6.3500e-003**		**6.3500e-003**	**6.3500e-003**	**0.0000**	**50.4731**	**50.4731**	**1.7600e-003**	**9.1000e-004**	**50.7884**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.7728	0.4902	0.0116	20.4775
Unmitigated	5.9660	0.6128	0.0145	25.5969

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.925 / 0	0.2935	0.0301	7.1000e-004	1.2591
General Office Building	2.48827 / 1.52507	0.7894	0.0811	1.9100e-003	3.3869
Mobile Home Park	4.56078 / 2.87528	1.4469	0.1486	3.5100e-003	6.2080
Motel	1.52201 / 0.169112	0.4829	0.0496	1.1700e-003	2.0717
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0591431 / 0.036249	0.0188	1.9300e-003	5.0000e-005	0.0805
Unrefrigerated Warehouse-No Rail	9.25 / 0	2.9346	0.3014	7.1200e-003	12.5907
Total		**5.9660**	**0.6128**	**0.0145**	**25.5969**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0.74 / 0	0.2348	0.0241	5.7000e-004	1.0073
General Office Building	1.99062 / 1.43204	0.6315	0.0649	1.5300e-003	2.7096
Mobile Home Park	3.64863 / 2.69988	1.1575	0.1189	2.8100e-003	4.9664
Motel	1.2176 / 0.158796	0.3863	0.0397	9.4000e-004	1.6574

Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	0.0473145 / 0.0240270	0.0150	1.5400e-003	4.0000e-005	0.0644
Unrefrigerated Warehouse-No Rail	7.4 / 0	2.3477	0.2411	5.6900e-003	10.0726
Total		**4.7728**	**0.4902**	**0.0116**	**20.4775**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.8219	0.7578	0.0000	31.7658
Unmitigated	25.6439	1.5155	0.0000	63.5316

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	4.96	1.0068	0.0595	0.0000	2.4944

General Office Building	13.02	2.6429	0.1562	0.0000	6.5478
Mobile Home Park	32.2	6.5363	0.3863	0.0000	16.1934
Motel	32.85	6.6683	0.3941	0.0000	16.5203
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	5.7	1.1571	0.0684	0.0000	2.8665
Unrefrigerated Warehouse-No Rail	37.6	7.6325	0.4511	0.0000	18.9091
Total		**25.6439**	**1.5155**	**0.0000**	**63.5316**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	2.48	0.5034	0.0298	0.0000	1.2472
General Office Building	6.51	1.3215	0.0781	0.0000	3.2739
Mobile Home Park	16.1	3.2682	0.1931	0.0000	8.0967
Motel	16.425	3.3341	0.1970	0.0000	8.2602
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Recreational Swimming Pool	2.85	0.5785	0.0342	0.0000	1.4333
Unrefrigerated Warehouse-No Rail	18.8	3.8162	0.2255	0.0000	9.4546
Total		**12.8219**	**0.7578**	**0.0000**	**31.7658**

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

GB Capital Phase 1 2050

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	10.00	1000sqft	0.23	10,000.00	0
General Office Building	4.00	1000sqft	0.09	4,000.00	0
General Light Industry	4.00	1000sqft	0.09	4,000.00	0
Unrefrigerated Warehouse-No Rail	40.00	1000sqft	0.92	40,000.00	0
Parking Lot	2.40	Acre	2.40	104,544.00	0
Motel	60.00	Room	2.70	117,612.00	0
Recreational Swimming Pool	1.00	1000sqft	0.02	1,000.00	0
Mobile Home Park	70.00	Dwelling Unit	8.82	84,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

GB Capital Phase 1 2050 - San Diego County, Winter

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Parking	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblTripsAndVMT	WorkerTripNumber	13.00	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	5.00	0.00
tblVehicleTrips	ST_TR	5.63	0.00

tblVehicleTrips	ST_TR	9.10	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	4.36	0.00
tblVehicleTrips	SU_TR	5.63	0.00
tblVehicleTrips	SU_TR	13.60	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	4.99	0.00
tblVehicleTrips	WD_TR	5.63	0.00
tblVehicleTrips	WD_TR	33.82	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	1.5655	0.0000	0.0000	1.4402	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.5655**	**0.0000**	**0.0000**	**1.4402**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	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	113.8624	2.1586	137.9995	0.2399		18.5730	18.5730		18.5730	18.5730	1,944.0212	825.7194	2,769.7405	1.8040	0.1529	2,860.4076
Energy	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**114.1247**	**4.5170**	**139.8114**	**0.2542**	**0.0000**	**18.7542**	**18.7542**	**0.0000**	**18.7542**	**18.7542**	**1,944.0212**	**3,687.1193**	**5,631.1405**	**1.8588**	**0.2054**	**5,738.8115**

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	6.8571	1.1115	6.2067	6.9800e-003		0.1166	0.1166		0.1166	0.1166	0.0000	1,344.5429	1,344.5429	0.0355	0.0245	1,352.7200
Energy	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**7.1194**	**3.4700**	**8.0186**	**0.0213**	**0.0000**	**0.2978**	**0.2978**	**0.0000**	**0.2978**	**0.2978**	**0.0000**	**4,205.9428**	**4,205.9428**	**0.0904**	**0.0769**	**4,231.1239**

	ROG	NOx	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	**93.76**	**23.18**	**94.26**	**91.62**	**0.00**	**98.41**	**98.41**	**0.00**	**98.41**	**98.41**	**100.00**	**-14.07**	**25.31**	**95.14**	**62.55**	**26.27**

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	10/31/2019	10/30/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 2.4

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	0	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	5	0.00	0.00	0.00	10.80	7.30	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	0.0000	0.0000	0.0000	0.0000	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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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**

3.2 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	0.0000	0.0000	0.0000	0.0000	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 Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive 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	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	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Mobile Home Park	0.00	0.00	0.00		
Motel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Recreational Swimming Pool	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4
Mobile Home Park	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Motel	9.50	7.30	7.30	19.00	62.00	19.00	58	38	4
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Recreational Swimming Pool	9.50	7.30	7.30	33.00	48.00	19.00	52	39	9
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
General Office Building	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Mobile Home Park	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Motel	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Parking Lot	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Recreational Swimming Pool	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668
Unrefrigerated Warehouse-No Rail	0.615011	0.035959	0.175734	0.096057	0.010793	0.005300	0.020678	0.029891	0.002015	0.001593	0.005502	0.000799	0.000668

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

GB Capital Phase 1 2050 - San Diego County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038
NaturalGas Unmitigated	0.2623	2.3584	1.8119	0.0143		0.1812	0.1812		0.1812	0.1812		2,861.4000	2,861.4000	0.0548	0.0525	2,878.4038

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 Light Industry	126.685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	221.26	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	553.151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	4429.54	0.0478	0.4082	0.1737	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.1220	521.1220	9.9900e-003	9.5500e-003	524.2187
Motel	18808.3	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	183.014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.2623**	**2.3584**	**1.8119**	**0.0143**		**0.1812**	**0.1812**		**0.1812**	**0.1812**		**2,861.4000**	**2,861.4000**	**0.0549**	**0.0525**	**2,878.4038**

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 Light Industry	0.126685	1.3700e-003	0.0124	0.0104	7.0000e-005		9.4000e-004	9.4000e-004		9.4000e-004	9.4000e-004		14.9041	14.9041	2.9000e-004	2.7000e-004	14.9927
General Office Building	0.22126	2.3900e-003	0.0217	0.0182	1.3000e-004		1.6500e-003	1.6500e-003		1.6500e-003	1.6500e-003		26.0306	26.0306	5.0000e-004	4.8000e-004	26.1853
General Office Building	0.553151	5.9700e-003	0.0542	0.0456	3.3000e-004		4.1200e-003	4.1200e-003		4.1200e-003	4.1200e-003		65.0766	65.0766	1.2500e-003	1.1900e-003	65.4633
Mobile Home Park	4.42954	0.0478	0.4082	0.1737	2.6100e-003		0.0330	0.0330		0.0330	0.0330		521.1220	521.1220	9.9900e-003	9.5500e-003	524.2187
Motel	18.8083	0.2028	1.8440	1.5489	0.0111		0.1401	0.1401		0.1401	0.1401		2,212.7357	2,212.7357	0.0424	0.0406	2,225.8849
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
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
Unrefrigerated Warehouse-No Rail	0.183014	1.9700e-003	0.0179	0.0151	1.1000e-004		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		21.5310	21.5310	4.1000e-004	3.9000e-004	21.6590
Total		**0.2623**	**2.3584**	**1.8119**	**0.0143**		**0.1812**	**0.1812**		**0.1812**	**0.1812**		**2,861.4000**	**2,861.4000**	**0.0549**	**0.0525**	**2,878.4038**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	6.8571	1.1115	6.2067	6.9800e-003		0.1166	0.1166		0.1166	0.1166	0.0000	1,344.5429	1,344.5429	0.0355	0.0245	1,352.7200
Unmitigated	113.8624	2.1586	137.9995	0.2399		18.5730	18.5730		18.5730	18.5730	1,944.0212	825.7194	2,769.7405	1.8040	0.1529	2,860.4076

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	0.9690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	107.1277	2.0921	132.2374	0.2396		18.5410	18.5410		18.5410	18.5410	1,944.0212	815.2941	2,759.3153	1.7940	0.1529	2,849.7333
Landscaping	0.1731	0.0665	5.7620	3.1000e-004		0.0321	0.0321		0.0321	0.0321		10.4252	10.4252	9.9700e-003		10.6744
Total	**113.8624**	**2.1586**	**137.9995**	**0.2399**		**18.5730**	**18.5730**		**18.5730**	**18.5730**	**1,944.0212**	**825.7194**	**2,769.7405**	**1.8040**	**0.1529**	**2,860.4076**

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	0.9690					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.5927					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.1223	1.0451	0.4447	6.6700e-003		0.0845	0.0845		0.0845	0.0845	0.0000	1,334.1177	1,334.1177	0.0256	0.0245	1,342.0456
Landscaping	0.1731	0.0665	5.7620	3.1000e-004		0.0321	0.0321		0.0321	0.0321		10.4252	10.4252	9.9700e-003		10.6744
Total	**6.8571**	**1.1115**	**6.2067**	**6.9800e-003**		**0.1166**	**0.1166**		**0.1166**	**0.1166**	**0.0000**	**1,344.5429**	**1,344.5429**	**0.0355**	**0.0245**	**1,352.7200**

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

GB Capital Phase 2 2050 - San Diego County, Annual

GB Capital Phase 2 2050

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	463.00	Room	15.43	672,276.00	0
Strip Mall	16.50	1000sqft	0.38	16,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Energy Mitigation - Energy Star appliances

Water Mitigation - 20% or more reduction from implementation of low-flow fixtures. Low-water plantings and drip irrigation.

Waste Mitigation - 50% recycling rate per AB 939

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	tons/yr										MT/yr					
Area	3.1693	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-003
Energy	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Waste						0.0000	0.0000		0.0000	0.0000	54.9720	0.0000	54.9720	3.2488	0.0000	136.1908
Water						0.0000	0.0000		0.0000	0.0000	4.1138	0.0000	4.1138	0.4225	9.9800e-003	17.6502
Total	**3.3811**	**1.9254**	**1.6217**	**0.0116**	**0.0000**	**0.1464**	**0.1464**	**0.0000**	**0.1464**	**0.1464**	**59.0858**	**2,096.0080**	**2,155.0938**	**3.7115**	**0.0484**	**2,262.3049**

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	3.1693	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-003
Energy	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	27.4860	0.0000	27.4860	1.6244	0.0000	68.0954
Water						0.0000	0.0000		0.0000	0.0000	3.2911	0.0000	3.2911	0.3380	7.9800e-003	14.1202
Total	**3.3811**	**1.9254**	**1.6217**	**0.0116**	**0.0000**	**0.1464**	**0.1464**	**0.0000**	**0.1464**	**0.1464**	**30.7771**	**2,096.0080**	**2,126.7850**	**2.0026**	**0.0464**	**2,190.6795**

	ROG	NOx	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**	**47.91**	**0.00**	**1.31**	**46.04**	**4.13**	**3.17**

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549
NaturalGas Unmitigated	0.2118	1.9254	1.6173	0.0116		0.1463	0.1463		0.1463	0.1463	0.0000	2,095.9994	2,095.9994	0.0402	0.0384	2,108.4549

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					
Hotel	3.92408e+007	0.2116	1.9236	1.6158	0.0115		0.1462	0.1462		0.1462	0.1462	0.0000	2,094.0359	2,094.0359	0.0401	0.0384	2,106.4797
Strip Mall	36795	2.0000e-004	1.8000e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9635	1.9635	4.0000e-005	4.0000e-005	1.9752
Total		**0.2118**	**1.9254**	**1.6173**	**0.0116**		**0.1463**	**0.1463**		**0.1463**	**0.1463**	**0.0000**	**2,095.9994**	**2,095.9994**	**0.0402**	**0.0384**	**2,108.4549**

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					
Hotel	3.92408e+007	0.2116	1.9236	1.6158	0.0115		0.1462	0.1462		0.1462	0.1462	0.0000	2,094.0359	2,094.0359	0.0401	0.0384	2,106.4797
Strip Mall	36795	2.0000e-004	1.8000e-003	1.5200e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9635	1.9635	4.0000e-005	4.0000e-005	1.9752
Total		**0.2118**	**1.9254**	**1.6173**	**0.0116**		**0.1463**	**0.1463**		**0.1463**	**0.1463**	**0.0000**	**2,095.9994**	**2,095.9994**	**0.0402**	**0.0384**	**2,108.4549**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	8.70597e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	207240	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			
Hotel	8.60211e+006	0.0000	0.0000	0.0000	0.0000
Strip Mall	203726	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

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1693	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-003
Unmitigated	3.1693	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-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	0.4789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-003
Total	**3.1693**	**4.0000e-005**	**4.3800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5700e-003**	**8.5700e-003**	**2.0000e-005**	**0.0000**	**9.1200e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4789					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-004	4.0000e-005	4.3800e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.5700e-003	8.5700e-003	2.0000e-005	0.0000	9.1200e-003
Total	**3.1693**	**4.0000e-005**	**4.3800e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**8.5700e-003**	**8.5700e-003**	**2.0000e-005**	**0.0000**	**9.1200e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.2911	0.3380	7.9800e-003	14.1202
Unmitigated	4.1138	0.4225	9.9800e-003	17.6502

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	11.7448 / 1.30498	3.7261	0.3827	9.0400e-003	15.9866
Strip Mall	1.2222 / 0.749088	0.3878	0.0398	9.4000e-004	1.6636
Total		**4.1138**	**0.4225**	**9.9800e-003**	**17.6502**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	9.39585 / 1.22538	2.9809	0.3062	7.2300e-003	12.7893
Strip Mall	0.977757 / 0.703394	0.3102	0.0319	7.5000e-004	1.3309
Total		**3.2911**	**0.3380**	**7.9800e-003**	**14.1202**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	27.4860	1.6244	0.0000	68.0954
Unmitigated	54.9720	3.2488	0.0000	136.1908

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	253.49	51.4562	3.0410	0.0000	127.4805
Strip Mall	17.32	3.5158	0.2078	0.0000	8.7103
Total		**54.9720**	**3.2488**	**0.0000**	**136.1908**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Hotel	126.745	25.7281	1.5205	0.0000	63.7403
Strip Mall	8.66	1.7579	0.1039	0.0000	4.3551
Total		**27.4860**	**1.6244**	**0.0000**	**68.0954**

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

GB Capital Phase 2 2050 - San Diego County, Winter

GB Capital Phase 2 2050

San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hotel	463.00	Room	15.43	672,276.00	0
Strip Mall	16.50	1000sqft	0.38	16,500.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2050
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDG&E's CO2e EF based on 100% RPS in 2050 based on SB 100.

Land Use -

Construction Phase - Operation only.

Off-road Equipment - Operation only.

Trips and VMT -

Vehicle Trips - Mobile emissions calculated in EMFAC outside of CalEEMod.

Area Coating - SDAPCD Rule 67.0.1 limits VOC content

Energy Use -

Area Mitigation - Mitigation of NG hearths.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	150
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	150
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	PhaseEndDate	11/27/2019	10/30/2019
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0
tblProjectCharacteristics	CO2IntensityFactor	720.49	0
tblProjectCharacteristics	N2OIntensityFactor	0.006	0
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	44.32	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	17.3682	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117
Energy	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Total	**18.5287**	**10.5504**	**8.9106**	**0.0633**	**0.0000**	**0.8020**	**0.8020**	**0.0000**	**0.8020**	**0.8020**		**12,660.0711**	**12,660.0711**	**0.2429**	**0.2321**	**12,735.3097**

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	17.3682	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117
Energy	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**18.5287**	**10.5504**	**8.9106**	**0.0633**	**0.0000**	**0.8020**	**0.8020**	**0.0000**	**0.8020**	**0.8020**		**12,660.0711**	**12,660.0711**	**0.2429**	**0.2321**	**12,735.3097**

	ROG	NOx	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**

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	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980
NaturalGas Unmitigated	1.1605	10.5500	8.8620	0.0633		0.8018	0.8018		0.8018	0.8018		12,659.9662	12,659.9662	0.2427	0.2321	12,735.1980

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					
Hotel	107509	1.1594	10.5401	8.8537	0.0632		0.8011	0.8011		0.8011	0.8011		12,648.1064	12,648.1064	0.2424	0.2319	12,723.2678
Strip Mall	100.808	1.0900e-003	9.8800e-003	8.3000e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8598	11.8598	2.3000e-004	2.2000e-004	11.9303
Total		**1.1605**	**10.5500**	**8.8620**	**0.0633**		**0.8018**	**0.8018**		**0.8018**	**0.8018**		**12,659.9662**	**12,659.9662**	**0.2427**	**0.2321**	**12,735.1981**

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					
Hotel	107.509	1.1594	10.5401	8.8537	0.0632		0.8011	0.8011		0.8011	0.8011		12,648.1064	12,648.1064	0.2424	0.2319	12,723.2678
Strip Mall	0.100808	1.0900e-003	9.8800e-003	8.3000e-003	6.0000e-005		7.5000e-004	7.5000e-004		7.5000e-004	7.5000e-004		11.8598	11.8598	2.3000e-004	2.2000e-004	11.9303
Total		**1.1605**	**10.5500**	**8.8620**	**0.0633**		**0.8018**	**0.8018**		**0.8018**	**0.8018**		**12,659.9662**	**12,659.9662**	**0.2427**	**0.2321**	**12,735.1981**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	17.3682	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117
Unmitigated	17.3682	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117

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	2.6240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4500e-003	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117
Total	**17.3682**	**4.4000e-004**	**0.0486**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1049**	**0.1049**	**2.7000e-004**		**0.1117**

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	2.6240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.7398					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4500e-003	4.4000e-004	0.0486	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		0.1049	0.1049	2.7000e-004		0.1117
Total	**17.3682**	**4.4000e-004**	**0.0486**	**0.0000**		**1.7000e-004**	**1.7000e-004**		**1.7000e-004**	**1.7000e-004**		**0.1049**	**0.1049**	**2.7000e-004**		**0.1117**

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

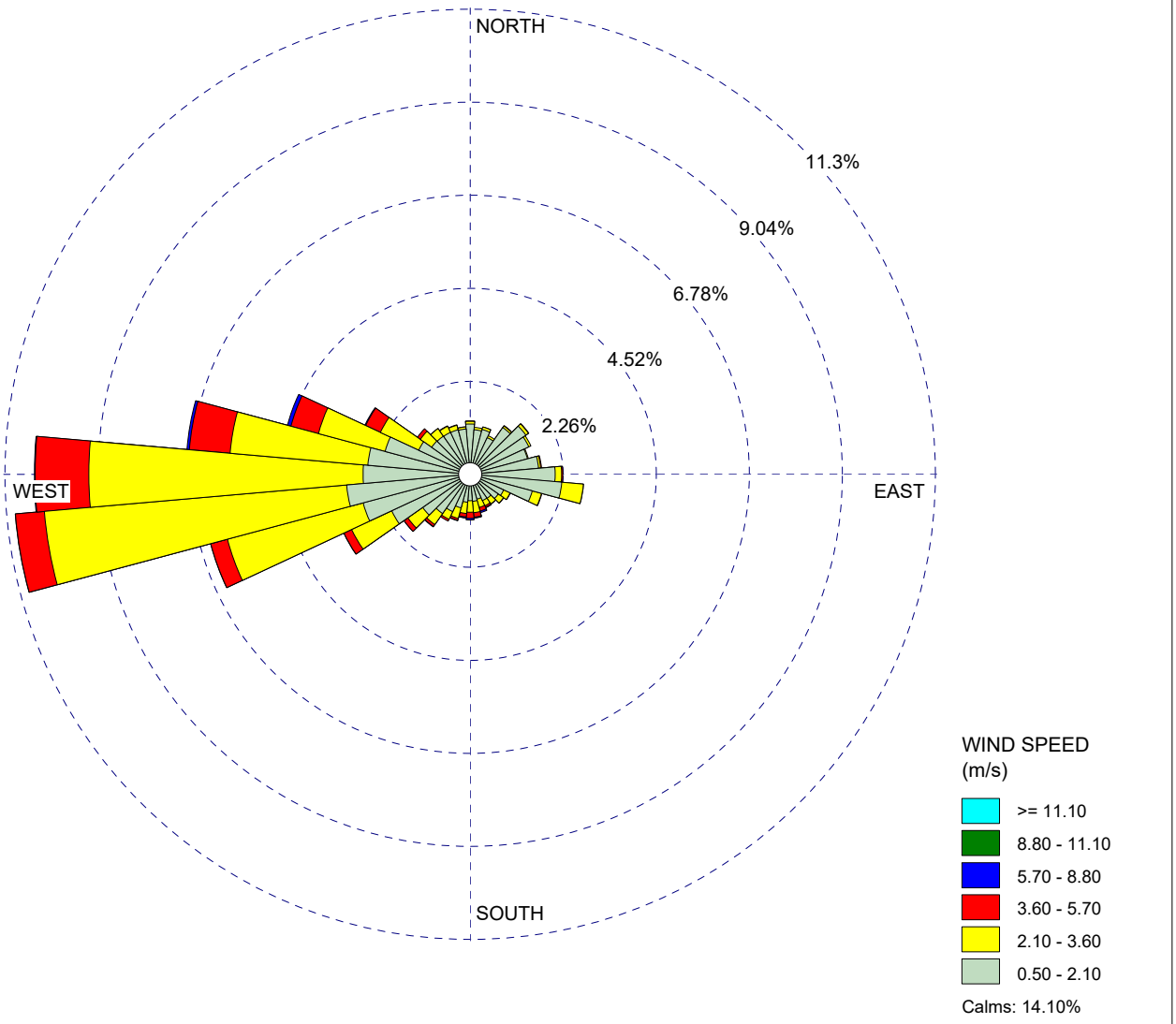
11.0 Vegetation

WIND ROSE PLOT:

Chula Vista

DISPLAY:

Wind Speed
Direction (blowing from)



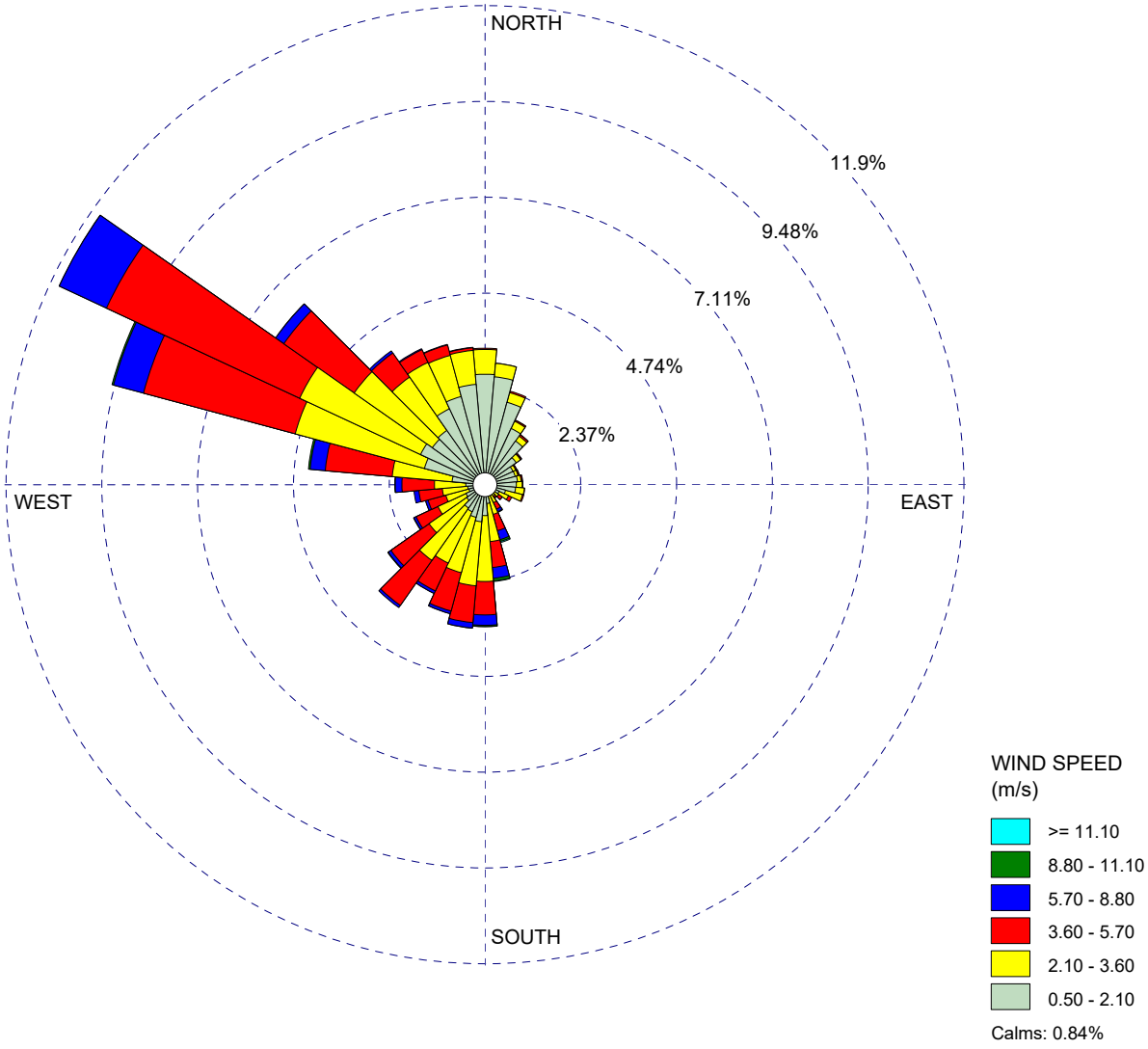
COMMENTS:	DATA PERIOD: **Start Date: 1/1/2010 - 00:00** **End Date: 12/31/2012 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **14.10%**	TOTAL COUNT: **26303 hrs.**	
	AVG. WIND SPEED: **1.71 m/s**	DATE: **9/15/2021**	PROJECT NO.:

WIND ROSE PLOT:

Lindbergh Field

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2010 - 00:00** **End Date: 12/31/2012 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **0.84%**	TOTAL COUNT: **26266 hrs.**	
	AVG. WIND SPEED: **2.83 m/s**	DATE: **9/15/2021**	PROJECT NO.:

Appendix G

Biological Survey and Wetland Delineation Report of Area West of Paradise Marsh

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

November 15, 2019 11789

Anna Buzaitis
San Diego Unified Port District
3165 Pacific Highway
San Diego, California 92112

Subject: Biological Resources Letter Report for the Western Portion of Paradise Marsh, National City, California

Dear Ms. Buzaitis:

This biological survey and wetland delineation report describes the existing biological conditions of the area on the west side of Paradise Marsh, located within the Bayfront of National City, California. This report describes survey methods and the results of vegetation mapping, jurisdictional delineation, rare plant surveys and wildlife surveys. The purpose of the survey is to provide biological constraints and impacts analysis for discussing the proposed alignment for the approximately 75-foot section of the 24-mile Bayshore Bikeway located west of Paradise Marsh. Dudek conducted vegetation mapping, a jurisdictional delineation, and wildlife surveys for the project area in 2016. In response to the California Department of Fish and Wildlife (CDFW) Notice of Preparation (NOP) Scoping Comment Letter for the proposed project, Dudek conducted rare plant surveys and focused wildlife surveys or habitat assessments for light-footed Ridgway's rail (*Rallus obsoletus obsoletus*), Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*), California least tern (*Sternula antillarum* browni), western snowy plover (*Charadrius alexandrinus nivosus*), and California brown pelican (*Pelecanus occidentalis californicus*) in 2019 within 100 feet of the proposed limits of impact. Dudek also provided review and analysis for special status species in addition to those listed above. In addition, the vegetation mapping and jurisdictional delineation within the project site and the 100-foot project buffer (study area) was updated to be able to evaluate indirect impacts.

1 Project Location

The area west of Paradise Marsh (i.e., study area) is located west of Interstate 5, east of Marina Way, north of the Sweetwater River channel and Pier 32 Marina, and is adjacent to Paradise Marsh and partly within the Paradise Marsh National Wildlife Refuge in National City (Figure 1). Paradise Marsh is part of the Sweetwater Marsh Unit of the San Diego Bay National Wildlife Refuge administered by the U.S. Fish and Wildlife Service (USFWS). The area west of Paradise Marsh is in Township 17 South, Range 2 West on the National City U.S. Geological Survey 7.5-minute quadrangle. The study area for the proposed project includes areas of potential disturbance plus a 100-foot buffer. Appendix A includes photos of the bike path alignment and its proximity to wetlands.

2 Regulatory Context

2.1 Federal

The federal Endangered Species Act (FESA) of 1973 (16 U.S.C. 1531 et seq.), as amended, is administered by USFWS for most plant and animal species, and by the National Oceanic and Atmospheric Administration – National

Marine Fisheries Service for certain marine species. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under FESA, it is unlawful to take any listed species; "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, the USFWS can issue incidental take permits for listed species.

Pursuant to Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "wetlands" (a subset of waters) is defined in 33 Code of Federal Regulations (CFR) 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark, as defined in 33 CFR 328.3(e).

The Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (ACOE) published a final rule defining the scope of waters protected under the Clean Water Act (CWA) in 2015. The rule was published in response to various Supreme Court cases. The updated rule does not establish any regulatory requirements, but rather is intended to increase the predictability and consistency of the CWA program by clarifying the scope of "waters of the United States" protected under the Act. Under the 2015 rule, the scope of jurisdiction is narrower compared to previous regulation. Specifically, the rule places qualifiers on some existing categories, including tributaries. In addition, Congress has exempted certain discharges from CWA section 404 permitting requirements. The agencies have also adopted streamlined regulatory requirements to make permitting simpler and more expedient (80 FR 37053).

The Migratory Bird Treaty Act was originally passed in 1918 as four bilateral treaties, or conventions, for the protection of a shared migratory bird resource. The primary motivation for the international negotiations was to stop the "indiscriminate slaughter" of migratory birds by market hunters and others (16 U.S.C. 703–712). Each of the treaties protects selected species of birds and provides for closed and open seasons for hunting game birds. The Migratory Bird Treaty Act protects over 800 species of birds. Two species of eagles that are native to the United States, the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*), were granted additional protection within the United States under the Bald and Golden Eagle Protection Act (16 U.S.C. 668–668d) to prevent the species from becoming extinct.

2.2 State

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA), which prohibits the take of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the state of California. Under CESA Section 86, "take" is defined as "hunt, pursue, catch, capture,

or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species, or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." CESA defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the Commission as rare on or before January 1, 1985, is a threatened species." A candidate species is defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list." CESA does not list invertebrate species.

Section 2081(b) and (c) of the California Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own, based on its findings that the federal permit adequately protects the species and is consistent with state law. A Section 2081(b) permit may not authorize the take of "Fully Protected" species and "specified birds" (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, 5515, and 5517). If a project is planned in an area where a fully protected species or a specified bird occurs, an applicant must design the project to avoid take.

Section 2835 of the California Fish and Game Code allows the CDFW to authorize incidental take in a natural community conservation plan (NCCP). Take may be authorized for identified species whose conservation and management is provided for in the NCCP, whether or not the species is listed as threatened or endangered under FESA or CESA, provided that the NCCP complies with the conditions established in Section 2081 of the California Fish and Game Code. An NCCP provides the framework for the San Diego Multiple Species Conservation Program (MSCP) plans.

2.3 California Coastal Act

Under the California Coastal Act of 1976 (CCA), the California Coastal Commission (CCC), and other agencies that have been delegated authority by CCC, regulate development in the "coastal zone." The CCA also protects designated sensitive coastal areas by providing additional review and approvals for proposed actions in these areas. The CCA defines wetlands as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, swamps, mudflats, and fens" (California Public Resources Code, Section 30121). The CCA allows diking, filling, or dredging of wetlands for certain uses, such as restoration. The CCA also directs each city or county within the coastal zone to prepare a local coastal program for CCC certification (California Public Resources Code, Section 30500). Under this definition, the CCC takes jurisdiction over all wetlands (as defined by the presence of any one of the three ACOE criteria (i.e., using the Cowardin method)).

Environmentally Sensitive Habitat Areas (ESHAs) are defined in the CCA as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (California Public Resources Code, Section 30107.5).

2.4 CEQA

The California Environmental Quality Act (CEQA) requires identification of a project's potentially significant impacts on biological resources and ways that such impacts can be avoided, minimized, or mitigated. The act also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

2.4.1 Special-Status Plants and Wildlife

The CEQA Guidelines define endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15380(b)(1)). A rare animal or plant is defined in Section 15380(b)(2) of the CEQA Guidelines as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guideline 15380(c).

For purposes of this report, species are considered sensitive if they are (1) listed or proposed for listing by state or federal agencies as threatened or endangered (CDFW 2019a); (2) plant species with a California Rare Plant Rank (CRPR) (formerly California Native Plant Society (CNPS) List) of 1A, 1B, 2A, or 2B (CDFW 2019a; CNPS 2016); (3) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFW (2019c); (4) mammals and birds that are fully protected (FP) species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (5) Birds of Conservation Concern (BCC), as designated by the USFWS (2008).

Some mammals and birds are protected by the state as fully protected species, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. Fully protected species may not be taken or possessed without a permit from the California Fish and Game Commission, and no permit is available for the incidental take of a fully protected species. Species considered state candidates for listing as threatened or endangered are subject to the taking prohibitions and provisions under CESA as if the species were listed.

2.4.2 Sensitive Vegetation Communities

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game[1] or the U.S. Fish and Wildlife Service."

2.4.3 Wetlands

Section IV, Appendix G (Environmental Checklist Form) of the CEQA Guidelines (14 CCR 15000 et seq.) requires an evaluation of impacts to "state or federally protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

3 Methods

Dudek conducted vegetation mapping, a jurisdictional delineation, and wildlife surveys for the area west of Paradise Marsh in June 2016. The southern portion of the project site was surveyed in September 2016. In response to the California Department of Fish and Wildlife (CDFW) NOP Scoping Comment Letter for the proposed project, Dudek conducted rare plant surveys and focused wildlife surveys for light-footed Ridgway's rail, Belding's Savannah sparrow, California least tern, western snowy plover, and California brown pelican (habitat assessment only) in 2019. In addition, the vegetation mapping and jurisdictional delineation within the project site and the 100 foot project buffer was updated. Table 1 lists the dates, conditions, and survey focus for each survey performed. Photographs of the bike path alignment and its proximity to wetlands are provided in Appendix A.

Table 1. Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
6/27/16	0650–0850	KMS	Wildlife survey	66°F–73°F, 20% cc–clear, 1–3 mph wind
6/27/16	1045–1440	ACT, KCD	Vegetation mapping, botanical survey, and jurisdictional delineation	73°F–75°F, 0%–90% cc, 0–2 mph wind
9/23/16	0655–1005	KMS	Wildlife survey	61°F–75°F, 0% cc, 1–5 mph wind
9/23/16	0820–1215	ACT, KCD	Vegetation mapping, botanical survey, and jurisdictional delineation	63°F–76°F, 0% cc, 2–3 mph wind
3/27/19	1000–1255	KMS	Belding's Savannah sparrow	64°F –65°F, 70% –80% cc, 1–7 mph wind
4/1/19	0835–1120	KMS	Belding's Savannah sparrow	66°F –78°F, 10% –15% cc, 0–4 mph wind
4/19/19	0620–1116	DM	Belding's Savannah sparrow	54°F –69°F, 20% –80% cc, 1–3 mph wind
4/26/19	0716–0916	CJA	Belding's Savannah sparrow	63°F –70°F, 90% –100% cc, 0 mph wind

[1] Effective January 1, 2013, the California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW). In this document, references to guidance or documents prior to the official name change use CDFG, whereas references after the name change use CDFW. References in quoted material are not altered.

Table 1. Schedule of Surveys

Date	Hours	Personnel	Focus	Conditions
4/30/19	0600–1000	JP	Belding's Savannah sparrow	58°F, 100% cc, 0–3 mph wind
4/7/19	1530–1855	JK	LFRR	61°F–58°F, 100% cc-overcast, 4–7 mph wind
4/17/19	0630–0940	JK	LFRR, LETE, WSP, BRPE (habitat assessment)	57°F–62°F, 50% cc-overcast, 3-5 mph wind
4/26/19	1545–1820	JK	LFRR	65°F–61°F, 10% cc-overcast, 5–7 mph wind
5/3/19	1615–1920	JK	LFRR	66°F–62°F, 100% cc-overcast, 3–5 mph wind
5/9/19	0605–0920	JK	LFRR, LETE, WSP	64°F–69°F, 50% cc-overcast, 5-7 mph wind
5/14/19	1630–1950	JK	LFRR	67°F–63°F, 100% cc-overcast, 5-7 mph wind
5/22/19	1020–1419	PCS	Update vegetation mapping and jurisdictional delineation; rare plant survey	64°F –68°F, 80% cc, 2–7 mph wind
6/28/19	0645-0915	JK	LETE, WSP	65°F–69°F, 100% cc-overcast, 5-7 mph wind
7/3/19	0620-0910	JK	LETE, WSP	67°F–72°F, 0% cc-overcast, 3-5 mph wind

Notes: ACT = Andy C. Thomson; KMS = Kevin M. Shaw; KCD = Kathleen C. Dayton; PCS = Patricia C. Schuyler; AH = Anita Hayworth, CJA = Callie J. Amoaku, JP = Jeffrey Priest, DM = Dilip Mahto, JK = John Konecny.
°F = degrees Fahrenheit; mph = miles per hour; cc = cloud cover; LETE = California least tern; WSP = Western snowy plover; BRPE = California brown pelican; LFRR = light-footed Ridgway's rail

3.1 Vegetation Community and Land Cover Mapping

Plant communities and land covers were mapped in the field directly onto a 90-scale (1 inch = 90 feet) color digital orthographic map of the study area (Bing Maps 2016). These boundaries and locations were digitized by Dudek geographic information system (GIS) technicians Andrew Greis and Matthew Watson using ArcGIS software.

Vegetation community classifications used in this report follow Holland (1986), as revised by Oberbauer et al. (2008).

3.2 Flora

All native and naturalized plant species encountered on the project site were identified and recorded. Latin and common names for plant species with a CRPR follow the CNPS online *Inventory of Rare and Endangered Plants* (2016). For plant species without a CRPR, Latin names follow the *Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California* (Jepson Flora Project 2015), and common names follow the U.S. Department of Agriculture Natural Resources Conservation Service PLANTS Database (USDA 2015a).

The potential for special-status plant species to occur on the project site was evaluated based on current database information, site location, elevation, vegetation condition, vegetation/land covers, and soils present.

3.3 Fauna

During the initial site visit a Dudek biologist walked the study area to identify and record all wildlife species, as detected during the field survey by sight, vocalizations, burrows, tracks, scat, or other signs. Binoculars (10-millimeter × 42-millimeter) were used to aid in the identification of observed wildlife. In addition to species actually observed, expected wildlife use of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The potential for special-status wildlife species to occur on the project site was evaluated based on current database information, site location, vegetation condition, vegetation/land covers, and amount of suitable habitat present. Results of the evaluation and surveys are included in Section 4. No trapping or focused surveying for nocturnal species was conducted. Latin and common names of animals follow Crother (2008) for reptiles and amphibians, American Ornithologists' Union (AOU 2012) for birds, Wilson and Reeder (2005) for mammals, North American Butterfly Association (NABA 2001) or San Diego Natural History Museum (SDNHM 2002) for butterflies, and Moyle (2002) for fish.

Six focused light-footed Ridgway's rail survey events were conducted at least 7 days apart at the Paradise Marsh between April 7 and May 14, 2019 (Table 1). Each survey lasted approximately 3 hours. The surveys were conducted in accordance with the 2015 USFWS survey protocol (USFWS 2015). The surveys were conducted by walking along the dirt path on the south east and west side of Paradise Marsh and stopping at stations approximately 100 feet (30 meters) apart and listening for vocalizing light-footed Ridgway's rail. If rails were not detected passively, a digital call-prompt of the light-footed Ridgway's rail "dueting" was played with an iPod and amplified speakers at 30-second intervals. A response was listened for approximately 10 minutes before proceeding to the next survey station. Dawn surveys were conducted for light-footed Ridgway's rail on April 17 and May 9; and dusk surveys were conducted on April 7th, April 26th, May 3rd, and May 14th. California least tern and western snowy plover surveys were conducted concurrently with the light-footed Ridgway's rail on April 17 and May 9, 2019. Two additional California least tern and western snowy plover surveys were conducted on June 28 and July 3, 2019. California least tern and western snowy plover surveys were conducted passively with the aid of binoculars.

A habitat assessment for the California brown pelican was conducted the morning of April 17, 2019, to determine whether suitable habitat for this species occurs within the project site and if surveys were warranted. The habitat assessment for California brown pelican was conducted after the light-footed Ridgway's rail/California least tern/western snowy plover survey had been completed.

The protocol for conducting surveys for Belding's Savannah sparrow, per CDFW, is to make 5 visits to the site (CDFG 2001) (see Table 1 for survey dates and times). The five surveys for Belding's Savannah sparrow were conducted between March 27 and April 30, 2019 under optimal conditions (i.e. appropriate temperature and visibility). Belding's Savannah sparrow surveys were conducted passively with the aid of binoculars.

3.4 Jurisdictional Delineation

A jurisdictional delineation was conducted within the project boundary to delineate areas under the jurisdiction of the CDFW, pursuant to Sections 1600–1603 of the California Fish and Game Code; under the jurisdiction of the ACOE, pursuant to Section 404 of the federal Clean Water Act; under jurisdiction of Regional Water Quality Control Board (RWQCB), pursuant to Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act; and under the jurisdiction of the CCC under the CCA. The ACOE-jurisdictional wetlands delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (ACOE 1987), the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008), and *Rapanos*

guidance (ACOE and EPA 2008); hydrology, vegetation, and soils were examined at potential wetland sites and were recorded on wetland determination data forms (Appendix B).

For tidally influenced waters, the ACOE has two limits to jurisdiction: one for Section 10 and one for Section 404. The shoreward limit to the ACOE regulatory program jurisdiction under the Section 10 authorities of the Rivers and Harbors Act in coastal areas extends to the line on the shore reached by the plane of the mean high water, which is 5 feet above mean lower low water (mean lower low water = 0 datum). The shoreward limit for the regulatory programs jurisdiction under the ACOE Section 404 authorities is based on the high tide line, or in the San Diego Bay 7.79 feet above mean lower low water (MLLW). The ACOE jurisdiction under Section 404 would extend to the limit of wetlands meeting the ACOE criteria abutting or adjacent the high tide line. The limits of areas under the jurisdiction of the RWQCB generally match those areas delineated as ACOE jurisdictional. However, stream channels with evidence of an ordinary high water mark that lack connectivity to waters of the United States may be considered to be under the jurisdiction of RWQCB, but not under the jurisdiction of ACOE. CCC jurisdiction was based on presence of any one of the three wetland criteria: soils, vegetation, and hydrology. CDFW, under the Lake and Streambed Alteration program, does not regulate marine wetlands that are supported by tidal influences.

4 Results

4.1 Site Description

Topography within the study area ranges from approximately 4 feet above mean sea level (amsl) in the southeastern portion of the site to approximately 24 feet amsl in the northwestern portion of the site. Relative to the mean lower low water[2], elevations range from approximately 1 to 21 feet (NOAA 2019). Soils on site include tidal flats; made land; and Huerhuero loam, 2% to 9% slopes (USDA 2015b). There are no streams or waters located within the study area included in the National Hydrography Dataset. Much of the site was previously graded and therefore is currently disturbed. North and east of the study area is Paradise Marsh, to the west are Marina Way and commercial and industrial businesses, and to the south are the Pier 32 Marina and the Sweetwater River channel (Figure 2).

4.2 Vegetation Communities and Land Covers

One upland vegetation community, three wetland vegetation communities or land covers, and three disturbed or developed land cover types are present within the study area. Upland vegetation communities include Diegan coastal sage scrub (including restored, disturbed, and Baccharis-dominated forms). Wetland vegetation communities and land covers include southern coastal salt marsh, open water, and saltpan/mudflats. Disturbed or developed land cover types include non-native vegetation, urban/developed, and disturbed habitat. Acreages of vegetation communities and land covers are listed in Table 2, and their spatial distribution is depicted on Figure 2.

[2] Mean lower low water (MLLW) is defined as "The average of the lower low water height of each tidal day observed over the National Tidal Datum Epoch." (NOAA 2019).

Table 2. Acreages of Vegetation Communities and Land Covers

Vegetation Community / Land Cover	Oberbauer Code	Acreage
Upland Vegetation Communities		
Diegan coastal sage scrub	32500	0.49
Disturbed Diegan coastal sage scrub	32500	0.54
Restored Diegan coastal sage scrub	32500	1.87
Diegan coastal sage scrub: baccharis-dominated	32530	2.45
	Subtotal	*5.35*
Wetlands		
Southern coastal salt marsh	52120	6.13
Open water	64100	1.62
Saltpan/mudflats	64300	0.19
	Subtotal	*7.93*
Disturbed or Developed Areas		
Non-native vegetation	11000	2.54
Urban/developed	12000	9.56
Disturbed habitat	11300	5.54
	Subtotal	*17.63*
	Total	**30.92**

4.2.1 Diegan Coastal Sage Scrub

According to Holland (1986), Diegan coastal sage scrub is composed of a variety of soft, low shrubs, characteristically dominated by drought-deciduous species such as California sagebrush (*Artemisia californica*), Eastern Mojave buckwheat (*Eriogonum fasciculatum* var. *fasciculatum*), and sages (*Salvia* sp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*). It typically develops on xeric (dry) slopes.

Diegan coastal sage scrub and all its variants are generally recognized as special-status plant communities by federal, state, and local resource agencies. It supports a diversity of special-status plants and animals, and has been reduced by 75% to 80% of its historical coverage throughout Southern California. It is the focus of the current California Natural Communities Conservation Planning Program.

On site, the revegetated Diegan coastal sage scrub is planted with coastal sage scrub species, dominated by Eastern Mojave buckwheat and broom baccharis (*Baccharis sarothroides*). The community has low diversity compared to natural Diegan coastal sage scrub but includes a few additional coastal sage scrub species. There are remnant irrigation components and erosion control materials present within the habitat as an indication of its restored status. The disturbed Diegan coastal sage scrub is disturbed by the prevalence of non-native grasses and forbs and also has low diversity. The baccharis-dominated Diegan coastal sage scrub on site is dominated by broom baccharis.

4.2.2 Diegan Coastal Sage Scrub: Baccharis-Dominated

Diegan coastal sage scrub: baccharis-dominated is similar to Diegan coastal sage scrub except that it is dominated by Baccharis species (desert broom (*B. sarothroides*) and/or coyotebrush (*B. pilularis*)) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils, and is often found within other forms of Diegan coastal sage scrub and on upper terraces of river valleys. This community is distributed along coastal and foothill areas in San Diego County. Within the study area, Diegan coastal sage scrub: Baccharis-dominated was mapped within portions of a graded pad previously mapped as disturbed habitat, where the density of plants was greater than 20% cover.

4.2.3 Non-Native Vegetation

Non-native vegetation includes a variety of ornamental species that have been planted. The areas mapped as non-native vegetation on site are dominated by coastal wattle (*Acacia cyclops*). There are a few additional non-native and ornamental species, as well as a few native planted species. Non-native vegetation occupies the slope above the southern coastal salt marsh and saltpan/mudflat in the eastern portion of the site.

4.2.4 Southern Coastal Salt Marsh

Southern coastal salt marsh is described by Oberbauer et al. (2008) as a coastal community dominated by highly productive salt-tolerant hydrophytes. This vegetation community has a long growing season in the summer and is found in sheltered areas of bays, lagoons, and estuaries (Holland 1986). Characteristic species include California seablite (*Suaeda californica*), pickleweed (*Salicornia* spp.), alkali seaheath (*Frankenia salina*), turtleweed (*Batis maritima*), and dwarf coastweed (*Amblyopappus pusillus*).

Coastal salt marsh within the project site is found along the eastern edge of the site. This vegetation community is dominated by Pacific swampfire (*Salicornia pacifica*), Parish's glasswort (*Arthrocnemum subterminale*), alkali seaheath, and turtleweed. Estuary seablite (*Suaeda esteroa*) is also present in this vegetation community.

4.2.5 Open Water

According to Oberbauer et al. (2008), the open water designation is primarily used to describe areas of open ocean water. Open water areas are aquatic areas that generally lack emergent vegetation, but typically support hydrophytic vegetation around their margins (e.g., mulefat scrub, southern willow scrub, freshwater marsh, or herbaceous wetland). Open water within the study area consists of stream channels associated with the marsh.

4.2.6 Saltpan/Mudflats

Saltpan/mudflats are composed of mud deposited by tides or rivers that are covered in salt or other minerals formed from evaporation. They are usually found in bays or estuaries or other sheltered areas (Oberbauer et al. 2008). Saltpan/mudflats occur adjacent to the southern coastal salt marsh in the eastern portion of the site.

4.2.7 Urban/Developed

Urban/developed land refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semipermanent structures,

pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). Developed areas are generally graded and compacted, sometimes covered with gravel road base or built, and have little to no vegetation present.

Developed land within the study area includes the paved road and parking area along the southern edge of the site.

4.2.8 Disturbed Habitat

Disturbed habitat refers to areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation communities, but continue to retain a soil substrate (Oberbauer et al. 2008). Typically vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species (Oberbauer et al. 2008). Examples of disturbed habitat include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites (Oberbauer et al. 2008).

Disturbed habitat covers much of the study area and has little biological value. It is dominated by the invasive plant, stinknet (*Oncosiphon piluliferum*), with emergent broom baccharis. While the broom baccharis is native, these plants are found at too low a density (less than 20% cover) to be specifically incorporated into this habitat community as an identifying characteristic. In addition, this area had been previously graded as a flat pad and therefore is heavily disturbed.

4.2.9 Floral Diversity

A total of 72 species of native or naturalized vascular plants, 44 native (61%) and 28 non-native (39%), was recorded on the site (see Appendix C). The high percentage of non-native species is likely due to the disturbance evidenced on site from previous grading activities.

4.3 Special-Status Plant Species

Endangered, rare, or threatened plant species, as defined in Section 15380(b) of the CEQA Guidelines (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include endangered or threatened plant species recognized in the context of CESA and FESA (CDFW 2019a) and plant species with a CRPR 1 through 4 (CNPS 2016).

Two special-status plant species were observed within the study area during the June and September 2016 survey: estuary seablite and beach goldenaster (*Heterotheca sessiliflora* ssp. *sessiliflora*) (see Figure 2). A focused rare plant survey was conducted for the study area in May 2019 which resulted in the detection in populations of an additional special-status plant species: salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*) (Figure 2). These species are described in further detail under Species Observed on Site in Section 4.3.1.

Special-status plant species that occur within the study area are presented in Appendix D1. Special-status plant species known to occur in the surrounding region that are not expected to occur or with low potential to occur on site are presented in Appendix D2. The evaluation of each species' potential to occur on site is based on the

elevation, habitat, and soils present on site and Dudek's knowledge of biological resources in the area and regional distribution of each species. Additionally, since a rare plant survey was conducted at the appropriate time of year to detect all special status plant species, for those species that had some potential due to physical conditions but that were not observed during the survey, were concluded to be not present and are shown on Appendix D2.

4.3.1 Species Observed on Site

Estuary seablite (*Suaeda esteroa*)

Estuary seablite is a perennial herb in the Chenopodiaceae family. This species has a CRPR of 1B.2, indicating that it is rare, threatened, or endangered in California and elsewhere, and is fairly endangered in California as it is restricted to coastal environments. This coastal species is found in coastal salt marshes and swamps at elevations from sea level to 15 feet (5 meters) amsl. The range of this species extends south from Ventura County to Baja California. This species is potentially threatened by development and recreation (CNPS 2016).

Approximately 136 individuals of Estuary seablite were mapped within the study area in areas mapped as coastal salt marsh along the eastern edge of the site (Figure 2).

Beach goldenaster (Heterotheca sessiliflora ssp. sessiliflora)

Beach goldenaster is a perennial herb in the Asteraceae family. This species has a CRPR of 1B.1, indicating that it is rare, threatened, or endangered in California and elsewhere, and is seriously endangered in California as it is known from fewer than 20 extant occurrences. This species is found in coastal chaparral, coastal dunes, and coastal scrub at elevations from sea level to 4,019 feet (1,225 meters) amsl. This species is considered extant only in San Diego County and into Baja California (CNPS 2016).

Approximately 50 individuals of beach goldenaster were mapped in the disturbed Diegan coastal sage scrub in the southern portion of the site (Figure 2).

Salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*)

Salt marsh bird's beak is an annual herb hemiparasite in the Orobanchaceae family. This species is federally and state listed as endangered, and has a CRPR of 1B.2. This species is found in coastal California south of San Luis Obispo County and into Baja California. The salt marsh bird's beak is found in coastal dunes and coastal salt marshes and swamps (CNPS 2016). It is threatened by loss of salt marsh habitat, invasion of non-native plants, and other types of development.

Approximately 15 individuals of salt marsh bird's beak were mapped in the within the study area in areas mapped as coastal salt marsh along the eastern edge of the site (Figure 2).

4.4 Wildlife

A total of 67 wildlife species, including coastal or oceanic species, upland species, and some urban-adapted species, were recorded within the site (Appendix E).

4.4.1 Special-Status Wildlife Species

Endangered, rare, or threatened wildlife species, as defined in Section 15380(b) of the CEQA Guidelines (14 CCR 15000 et seq.), are "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of CESA and FESA (CDFW 2019c); (2) California Species of Special Concern (SSC) and Watch List (WL) species, as designated by the CDFW (2019x); (3) mammals and birds that are fully protected (FP) species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (4) Birds of Conservation Concern (BCC), as designated by the USFWS (2008).

Seven special-status wildlife species were detected within the study area: Cooper's hawk (*Accipiter cooperii*), American peregrine falcon (*Falco peregrinus anatum*), osprey (*Pandion haliaetus*), wandering skipper (*Panoquina errans*), Belding's savannah sparrow, American white pelican (*Pelecanus erythrorhynchos*), and double-crested cormorant (*Phalacrocorax auritus*). These species are described in further detail under Species Observed on Site (Section 4.4.2); locations of special-status wildlife species observations are provided on Figure 2.

Special-status wildlife species observed or with a moderate potential to occur within the study area are presented in Appendix F1. Special-status wildlife species known to occur in the surrounding region that are not expected to occur or with low potential to occur on site are presented in Appendix F2. The evaluation of each species' potential to occur on site is based on the site location, vegetation condition, vegetation/land covers, and amount of suitable habitat present and Dudek's knowledge of biological resources in the area and regional distribution of each species. Species were determined to have moderate potential to occur if there is suitable habitat present on site, but the species was not observed during surveys. Species were determined to have low potential to occur if there was limited habitat requirements present on site. Species are not expected to occur if the focused surveys were negative or if there is no suitable habitat occurring within the project site. There are four species that were not observed during 2016 or 2019 wildlife surveys but are considered to have a moderate potential to occur on site (but could likely be excluded from this list if species-specific focused surveys are conducted to determine presence or absence of these species) (Appendix F1).

Special-status wildlife species for which focused surveys or evaluations were conducted include light-footed Ridgway's rail, western snowy plover, California least tern, California brown pelican, and Belding's Savannah sparrow. Based on the surveys, it was concluded that light-footed Ridgway's rail, western snowy plover, and California least tern are not present. Based on the habitat assessment, there is no suitable habitat for California brown pelican. Additionally, there are no sandy beaches and extremely limited and isolated tidal flats for nesting California least terns and extremely limited open water for foraging California least terns. There are no sandy beaches for nesting western snowy plovers and limited and isolated tidal flats for foraging western snowy plovers on site. Belding's Savannah sparrow was observed during the focused surveys and is discussed below.

4.4.2 Species Observed on Site

4.4.2.1 Birds

Cooper's Hawk (*Accipiter cooperii*)

Cooper's hawk is a CDFW WL species. It is found throughout California in wooded areas. This species inhabits live oak, riparian, deciduous, or other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Cooper's hawk uses patchy woodlands and edges with snags for perching while it hunts for prey such as small birds, small mammals, reptiles, and amphibians within broken woodland and habitat edges (Zeiner et al. 1990).

Cooper's hawk was observed flying over the project site and could forage within the study area. This species is not expected to nest due to lack of wooded habitat within the study area.

American Peregrine Falcon (*Falco peregrinus anatum*)

American peregrine falcon is a CDFW FP species and inhabits riparian woodland, forest, inland wetlands, and coastal habitats (Zeiner et al. 1990). This species migrates throughout California, and breeds along the coast of southern and central California, inland north coastal mountains, Klamath Mountains, Cascade Range, Sierra Nevada, and Channel Islands. The American peregrine falcon frequents bodies of water in open areas with cliffs.

American peregrine falcon was observed flying over the project site and could forage within the study area. There is no potential for nesting on site due to lack of suitable cliffs, buildings, and bridges occurring on site.

Osprey (*Pandion haliaetus*)

Osprey is a CDFW WL species. This species suffered regional decline due to pesticide poisoning during the middle of the twentieth century, but it has since rebounded and nesting pairs are once again found within San Diego County. There are non-migratory residents, which breed in San Diego County, as well as migratory individuals that are found within the San Diego County during winter months. This species is found near large water bodies, including lakes, ocean, estuaries, rivers, and marsh habitats. Ospreys build large stick nests, often on man-made structures, often near water bodies. The primary source of food for this species is fish (Unitt 2004).

An individual osprey was observed flying over the project site from east to west (Figure 2). This species is not expected to nest within the site due to lack of suitable nesting habitat, which includes large snags, dead-topped trees on cliffs, or human made platform structures. There is some potential for it to forage within the water channels adjacent to the project site. It is unknown if that area is occupied by potential prey species for the osprey. Since it was not observed foraging, but there is a possibility that it could it is included on Appendix F1.

Belding's Savannah sparrow (*Passerculus sandwichensis beldingi*)

Belding's Savannah sparrow is a State Endangered species found in coastal salt marshes dominated by pickleweed in coastal Southern California and northern Baja California. This subspecies is non-migratory and nests in dense marsh vegetation, including pickleweed, shoregrass (*Distichlis littoralis*), and turtleweed. Habitat loss and fragmentation are a serious threat to these species since there is very little to no dispersal between populations separated by even 0.25 mile (Unitt 2004).

Belding's Savannah sparrow were observed on site during the September 2016 survey. The focused survey for the species conducted in 2019 estimated approximately 13 territories of the species located within Paradise Marsh with approximately seven territories located within the suitable habitat on site or within or slightly overlapping the 100 foot buffer (Figure 2).

American White Pelican (*Pelecanus erythrorhynchos*)

American white pelican is a CDFW SSC. American white pelican nests at large freshwater and salt water lakes and forages along shores. This species is a common migrant in spring and fall throughout southern California, and a rare migrant in fall and winter within the San Diego Bay (Zeiner et al. 1990). The American white pelican feeds in water of various depths. This species rests during the day and roosts at night along the edge of water, on beaches, sandbars, or old driftwood, but never in trees (Zeiner et al. 1990).

An American white pelican was observed flying over the southern end of the study area (Figure 2). There is no potential for nesting on site due to lack of suitable habitat. Similar to the discussion above on the osprey, there is some potential for it to forage within the water channels adjacent to the project site. It is unknown if that area is occupied by potential prey species for the white pelican. Since it was not observed foraging but there is a possibility that it could, it is included on Appendix F1.

Double-Crested Cormorant (*Phalacrocorax auritus*)

Double-crested cormorant inhabits coasts and banks of inland lakes, and fresh, salt, and estuarine waters (Zeiner et al. 1990). This species resides along the entire coast of California, and nests on undisturbed cliffs, rugged slopes, and live or dead trees. Double-crested cormorant perches beside water on unvegetated surfaces, and requires an elevated perch or open length of water for labored take-off.

Double-crested cormorant was observed outside of the study area but is expected to forage within suitable habitat within the study area. Double-crested cormorant is not expected to nest on site due to the lack of riparian trees (Figure 2).

4.4.2.2 Invertebrates

Wandering skipper (*Panoquina errans*)

Wandering skipper is a butterfly species designated as Near Threatened by the International Union for Conservation of Nature and is a covered species under the MSCP. Wandering skipper is exclusively coastal and has been collected on ocean bluffs and other open areas near the ocean. The larval host plant is saltgrass (*Distichlis spicata*) (Orsak 1977). This species is found from Santa Barbara County south into Baja California and some parts of mainland Mexico (SBMNH 2014).

An individual wandering skipper was observed within the project site near the southern coastal salt marsh habitat during the wildlife survey. This species requires salt marsh habitat and the larval host plant for this species (i.e. saltgrass (*Distichlis spicata*)) occurs within the project site.

4.4.3 Species with Moderate Potential to Occur

The following species were considered to have a moderate potential to occur within the study area based on the presence of suitable habitat in close proximity to the study area. None of these species was observed during the 2016 or 2019 surveys.

4.4.3.1 Reptiles

Orange-throated whiptail (*Aspidoscelis hyperythra*)

Orange-throated whiptail is a CDFW WL species. This species is found in low-elevation coastal scrub, chaparral, and valley–foothill hardwood. This species is found in Orange, San Bernardino, Riverside, and San Diego Counties. It feeds on small invertebrates and small lizards and lays eggs in June and July that hatch after approximately 2 months. The primary threat to this species is habitat loss and fragmentation due to development (California Herps 2016). The nearest CNDDB record for this species is approximately 2 miles (CDFW 2019b).

This species has moderate potential to occur on site due to the limited acreage and relative isolation of restored coastal sage scrub and was not found during the surveys.

4.4.3.2 Birds

Northern harrier (*Circus hudsonius*)

Northern harrier is a CDFW SSC species. This species is widespread throughout North America but is of regional concern in California and San Diego. Northern harriers use a wide variety of open habitats in California, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, floodplains, and marshes. The species also forages over coastal sage scrub and other open scrub communities. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrub-steppe, and riparian woodland (Smith et al. 2011). The nearest CNDDB record for this species is approximately 7 miles south of the study area, within the Tijuana River Valley (CDFW 2019b).

Breeding generally occurs from March to May. Nests are located on the ground in patches of dense and tall vegetation, particularly wetlands and grasslands. Clutch size ranges from four to nine eggs that are incubated for 30 to 32 days (Cripe 2000; Davis and Niemela 2008; Smith et al. 2011). Chicks typically fledge at 4 to 5 weeks by making brief flights near the nest (Smith et al. 2011). Northern harrier is primarily threatened by extensive loss of habitat (Cripe 2000), including freshwater and estuarine wetland breeding habitat and grasslands (Smith et al. 2011).

This species has moderate potential for foraging in the open scrub habitats, but there is no potential for nesting on site due to lack of suitable habitat and was not found during the surveys.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)

Southern California rufous-crowned sparrow is a CDFW WL species. It nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches in Southern California. Another subspecies is found in Northern California that inhabits steep, often rocky hillsides with grass and forbs (Zeiner et al. 1990). The nearest CNDDB record for this species is approximately 7 miles southeast of the study area (CDFW 2019b).

This species has moderate potential to occur on site due to suitable, though acreage-limiting, disturbed habitat and restored coastal sage scrub and was not found during the surveys.

4.5 Jurisdictional Waters and Wetlands

Table 3 and Figure 2 present existing ACOE-, RWQCB-, and CCC-jurisdictional resources on site.

A wetlands jurisdictional delineation was conducted in 2016 and updated in 2019 within the study area and buffer following methods described in Section 3.4, Jurisdictional Delineation. The 2015 revisions to the CWA described in Section 2.1, Federal Regulatory Context were taken into account, but did not affect the results of the jurisdictional delineation. Historically, industrial development of the site led to channelization of the area west of the marsh so that it drained directly to the ocean from where West 32nd Street is today. Currently, Paradise Marsh is connected to the Sweetwater River flood channel to the south, which is directly connected to the Pacific Ocean. Paradise Marsh receives inflows from Paradise Creek in the northeastern portion of the marsh. Tidal influences and freshwater input from Paradise Creek

There is approximately 7.94 acres of jurisdictional wetlands and waters within the project site study area. The wetlands and waters are composed of approximately 6.13 acres of ACOE-, RWQCB-, and CCC-jurisdictional wetlands and approximately 1.81 acres of ACOE-, RWQCB-, and CCC-jurisdictional non-wetland waters of the United States (see Table 3). Since the study area is solely influenced by tides, with no lakes or streambeds running through the site, none of the wetlands or waters on site is under CDFW jurisdiction.

Hydrology, vegetation, and soils were assessed at seven data station locations (see Figure 2) throughout the study area to determine the presence or absence of wetlands field indicators. Four soil mapping units were recorded within the study area; however, only one soil mapping unit is listed on the National Hydric Soils List for the San Diego County area: tidal flats (USDA 2015b).

Table 3. Jurisdictional Wetland Delineation Summary

Jurisdiction	Acreage
ACOE, RWQCB, CCC wetlands (southern coastal salt marsh)	6.13
ACOE, RWQCB, CCC non-wetland waters of the United States (open water and saltpan/mudflats)	1.81
Total	**7.94**

Results from the seven data stations (Table 4) document that two data stations exhibited all three wetland field indicators. The data collected at each data station are included in Appendix B, on the ACOE's Wetland Determination Data Forms for the Arid West Region. Photos of the data station sampling points are also included in Appendix B.

Table 4. Data Station Point Summary

Data Station	Wetland Determination Field Indicators			Stream Association	Determination	Jurisdiction
	Vegetation	Hydric Soils	Hydrology			
A1	None	None	None	No	Upland	None
A2	✓	✓	✓	No	Coastal wetland	ACOE, RWQCB, CCC
A3	None	✓	✓	No	Coastal non-wetland waters of the United States	ACOE, RWQCB, CCC
A4	None	None	None	No	Upland	None
B1	None	None	None	No	Upland	None
B2	✓	✓	✓	No	Coastal wetland	ACOE, RWQCB, CCC
B3	None	None	None	No	Upland	None
2.1	None	None	None	No	Upland	None
2.2	✓	None	None	No	Coastal wetland	CCC

The ✓ icon indicates presence of that field indicator at that data station.

Data Station A1 is located on an upland slope devoid of hydric vegetation, hydric soils, and lacking hydrologic indicators and therefore is not jurisdictional.

Data station A2 includes all three indicators: hydric vegetation dominated by Pacific swampfire, a depleted matrix indicating hydric soils, and oxidized rhizospheres along living roots indicating hydrology. Based on the presence of all three hydrologic indicators, this area was mapped as a wetland under the jurisdiction of ACOE, RWQCB, and CCC.

Data station A3 is unvegetated but has hydric soils, noted by the presence of a depleted matrix and evidence of hydrology with a water table at 15 inches below the surface and saturation at 14 inches below the surface. Based on the presence of hydric soils and hydrology but lack of hydric vegetation, this area was mapped as a non-wetland waters of the United States under the jurisdiction of ACOE, RWQCB, and CCC.

Data Station A4 is located on an upland slope devoid of hydric vegetation, hydric soils, and lacking hydrologic indicators and therefore is not jurisdictional.

Data Station B1 is located on an upland slope devoid of hydric vegetation, hydric soils, and lacking hydrologic indicators and therefore is not jurisdictional.

Data station B2 includes all three indicators: hydric vegetation dominated by turtleweed; a depleted matrix indicating hydric soils; and evidence of hydrology with a water table at 14 inches below the surface, saturation at 10 inches below the surface, and oxidized rhizospheres along living roots. Based on the presence of all three hydrologic indicators, this area was mapped as a wetland under the jurisdiction of ACOE, RWQCB, and CCC.

Data Station B3 is located on an upland slope devoid of hydric vegetation, hydric soils, and lacking hydrologic indicators and therefore is not jurisdictional.

Data Station 2.1 is located on an upland ditch devoid of hydric vegetation, hydric soils, and lacking hydrologic indicators and therefore is not jurisdictional.

Data Station 2.2 is located east of a foot trail that runs along the inlet. It includes hydric vegetation dominated by Pacific swampfire and lemonadeberry. Soils are not hydric, and no evidence of hydrology was observed. Based on the presence of a single indicator, this area was mapped as a wetland under the jurisdiction of CCC only.

Non-wetland waters of the United States and wetlands are considered sensitive biological resources, and impacts to these resources are regulated by the ACOE, RWQCB, and CCC.

Jurisdiction

ACOE

The saltpan/mudflat located along the eastern boundary of the site is classified as ACOE-jurisdictional non-wetland waters of the United States due to the presence of hydric soils but lack of hydrophytic vegetation. Areas lower than the high tide line (7.79 feet above MLLW) along the western edge of the project are considered waters of the United States (i.e., an estuary of the San Diego Bay). The 8-foot contour was used to map the extent of the area encompassed by the high tide line as this contour most closely approximates the high tide line. In addition, the coastal salt marsh associated with Data Stations A2 and B2 are under the jurisdiction of the ACOE as wetlands. ACOE-jurisdictional areas are shown on Figure 2.

RWQCB

The RWQCB's jurisdiction corresponds with wetland and non-wetland waters of the United States. The saltpan/mudflat mapped is considered a federal non-wetland water since it connects with navigable waters, San Diego Bay and the Pacific Ocean. In addition, the waters along the bay and the coastal salt marsh associated with Data Stations A2 and B2 are under the jurisdiction of the RWQCB. RWQCB-jurisdictional areas are shown on Figure 2.

CCC

All wetland vegetation communities (coastal salt marsh) are considered CCC-jurisdictional wetlands. In addition, the southern coastal salt marsh at the southern end of the project site with hydric vegetation, but no hydric soils or evidence of hydrology, is considered CCC-jurisdictional.

4.6 Environmentally Sensitive Habitat Areas

Based on the results of the vegetation mapping, wetland delineation, and assessment for the occurrence of special-status species, a determination of ESHAs per the California Coastal Act was made for the area west of Paradise Marsh. An ESHA is defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (California Public Resources Code, Section 30107.5). Based on the sensitivity, rarity, and potential for special-status species, the areas mapped as southern coastal salt marsh, open water and saltpan/mudflats, a total of 7.94 acres, would be considered ESHA (see Figure 3). These areas are wetlands, a rare habitat, and are known to be occupied by wandering skipper and Belding's Savannah sparrow and also support special-status plant species. The Diegan coastal sage scrub on site, while composed of native upland habitat, is of a narrow and small configuration and supports a low diversity of plant species. The revegetated Diegan coastal sage scrub would not be considered rare or especially valuable because it was planted and is disturbed. The disturbed Diegan coastal sage scrub contains 50 individuals of beach goldenaster, a special-status plant species. While this is a special-status plant species, it is found along the coast of San Diego County and is typically more of a bluff habitat occupant. This particular location has been reported as a site where the plant was introduced and thus would not be considered ESHA (Reiser 2001).

4.7 Habitat Linkages/Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal.

Paradise Marsh itself allows for habitat movement within the marsh. The study area is bordered to the east, west, and north by industrial development or roadways that provide no habitat value for wildlife. The marsh is directly connected to the Sweetwater River to the south and thus provides valuable opportunities for foraging. Therefore, the study area is an important wildlife corridor or habitat linkage.

5 Anticipated Project Impacts

This section addresses direct and indirect impacts to biological resources that would result from implementation of the proposed project.

Direct impacts were quantified by overlaying the proposed impact limits (i.e., extent of vegetation clearing and grading) on the biological resources map (i.e., vegetation map) of the site (Figure 3). For purposes of this assessment, biological resources within the areas to be cleared are considered directly impacted.

Indirect Impacts result primarily from adverse "edge effects," and may be short-term in nature, related to temporary construction impacts, or long-term in nature, associated with development in proximity to biological resources within natural open space. For the proposed project, it is assumed that the potential indirect impacts resulting from construction activities include dust, noise, and general human presence that may temporarily disrupt species and habitat vitality. Construction-related soil erosion and runoff would be subject to Best Management Practices and requirements that address erosion and runoff, including the federal Clean Water Act, National Pollution Discharge Elimination System (NPDES), and preparation of a Stormwater Pollution Prevention Plan (SWPPP).

5.1 Explanation of Findings of Significance

Impacts to sensitive habitats, special-status plants, and special-status wildlife species must be quantified and analyzed to determine whether such impacts are significant under the California Environmental Quality Act (CEQA). CEQA Guidelines section 15064(b) states that an ironclad definition of "significant" effect is not possible because the significance of an activity may vary with the setting. Appendix G of the Guidelines, however, does provide "examples of consequences which may be deemed to be a significant effect on the environment" (Guidelines section 15064[e]). These effects include substantial effects on rare or endangered species of animal or plant or the habitat of the species. Guidelines section 15065(a) is also helpful in defining whether a project may have "a significant effect on the environment." Under that section, a proposed project may have a significant effect on the environment if the project has the potential to: (1) substantially degrade the quality of the environment; (2) substantially reduce the habitat of a fish or wildlife species; (3) cause a fish or wildlife population to drop below self-sustaining levels; (4) threaten to eliminate a plant or animal community; (5) reduce the number or restrict the range of a rare or endangered plant or animal; or (6) eliminate important examples of the major period of California history or prehistory.

The evaluation of whether or not an impact to a particular biological resource is significant must consider both the resource itself and the role of that resource in a regional context. Substantial impacts are those that contribute to, or result in, permanent loss of an important resource, such as a population of a rare plant or animal. Impacts may be important locally because they result in an adverse alteration of existing site conditions, but considered not significant because they do not contribute substantially to the permanent loss of that resource regionally. The severity of an impact is the primary determinant of whether or not that impact can be mitigated to a level below significant.

5.2 Direct Impacts

5.2.1 Vegetation Communities/ESHA

Implementation of the project would result in direct impacts to 0.40 acres of Diegan coastal sage scrub (including restored and baccharis-dominated forms), 0.03 acres of southern coastal salt marsh, and 0.98 acres of disturbed and developed lands (Figure 3). The wetlands on site are considered ESHA. Therefore, the project would impact 0.03 acres of ESHA (i.e., southern coastal salt marsh). Table 5 provides a summary of these impacts.

Table 5. Direct Permanent Impacts to Vegetation Communities and Land Covers

Vegetation Community / Land Cover	Oberbauer Code	Acreage on Site	Permanent Impact Acreage
Upland Vegetation Communities			
Diegan coastal sage scrub	32500	0.49	0.02
Disturbed Diegan coastal sage scrub	32500	0.54	—
Restored Diegan coastal sage scrub	32500	1.87	0.37
Diegan coastal sage scrub: baccharis-dominated	32530	2.45	0.01
	Subtotal	*5.35*	*0.40*
Wetlands			
Southern coastal salt marsh	52120	6.13	0.03
Open water	64100	1.62	—
Saltpan/mudflats	64300	0.19	—
	Subtotal	*7.93*	*0.03*
Land Cover Types			
Non-native vegetation	11000	2.54	0.27
Disturbed habitat	11300	5.54	0.67
Urban/developed	12000	9.56	0.04
	Subtotal	*17.63*	*0.98*
	Total	**30.92**	**1.41**

5.2.2 Jurisdictional Wetlands and Waters

Direct impacts to jurisdictional wetlands and waters associated with the proposed project include permanent impacts to 0.03 acres of ACOE/RWQCB/CCC-jurisdictional wetlands (coastal salt marsh).

5.2.3 Special-Status Plants

The focused survey for special-status plant species identified three special-status plant species: salt marsh bird's-beak, beach goldenaster, and estuary seablite. No other species have a moderate to high potential to occur on site. No special-status plants would be directly impacted by the proposed project.

5.2.4 Special-Status Wildlife

Seven special-status wildlife species were detected within the study area during surveys: Cooper's hawk, American peregrine falcon, osprey, wandering skipper, Belding's Savannah sparrow, American white pelican, and double-crested cormorant (Figure 2). Four species that were not observed during 2016 or 2019 wildlife surveys but are considered to have a moderate potential to occur on site include orange-throated whiptail, yellow rail (*Coturnicops noveboracensis*), northern harrier, and Southern California rufous-crowned sparrow (Appendix F1).

Habitat within the project site and the study area for all of these species is limited to Diegan coastal sage scrub, southern coastal salt marsh, open water, and saltpan/mudflats. Therefore, the direct loss of breeding and foraging habitat for these species is limited to grading of the Diegan coastal sage scrub (including restored and baccharis-dominated forms) and southern coastal salt marsh on site.

Due to the mobility of avian and reptilian species, direct impacts are not anticipated to occur to individuals of these species as a result of development.

There is potential for birds, including special-status Belding's Savannah sparrow and Southern California rufous-crowned sparrow, to breed in and utilize the area within and adjacent to the project site, both outside and during the nesting season. California Fish and Game Code; Section 3503 states that, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto". The project site supports suitable vegetation for bird nesting, including shrubs associated with the Diegan coastal sage scrub and southern coastal salt marsh. This represents nesting habitat for raptors and songbirds protected by the Migratory Bird Treaty Act (MBTA) and Sections 3503 and 3503.5 of the Fish and Game Code. In order to protect nesting birds, including Belding's Savannah sparrow, the project would avoid construction during the breeding season, from February 15 to September 15.

5.2.5 Habitat Linkages/Wildlife Corridors

Project implementation is not expected to directly impact habitat linkages or wildlife corridors because wildlife would still be able to use Paradise Marsh for movement and the study area would be unaffected for the its connectivity to the Sweetwater River.

5.3 Indirect Impacts

5.3.1 Vegetation Communities/Special-Status Plants

Indirect impacts to sensitive upland vegetation communities and special-status plants could result primarily from adverse "edge effects" as described above. During construction activities, edge effects may include dust, which could disrupt plant vitality in the short-term or construction-related soil erosion and water runoff. The project site is bordered by industrial development to the west. Therefore, edge effects to the marsh would only occur along the eastern boundary of the project. It is assumed, however, that standard construction Best Management Practices (BMPs) and construction-related minimization measures to control dust, erosion, and runoff would be implemented and would ameliorate these effects.

Potential long-term indirect impacts on sensitive vegetation and special-status plant species could include trampling by humans/bikes traveling off-trail and invasion by exotic plants. As currently designed as part of Bayshore Bikeway Route 3, fencing would be installed along the edge of the bikeway to prevent trampling and limit the spread of invasive plant species into areas adjacent to the bikeway.

5.3.2 Jurisdictional Wetlands and Waters

Many of the potential short-term indirect impacts to sensitive vegetation communities/special-status plants described above also apply to jurisdictional wetlands and waters. It is assumed, however, that standard construction BMPs and construction-related minimization measures to control dust, erosion, and runoff will be implemented and will ameliorate these effects.

Many of the potential long-term indirect impacts to sensitive vegetation communities/special-status plants described above also apply to jurisdictional wetlands and waters. As currently designed as part of Bayshore Bikeway Route 3, fencing would be installed along the edge of the bikeway to prevent trampling into jurisdictional wetlands and waters associated with Paradise Marsh and limit the spread of invasive plant species into Paradise Marsh.

5.3.3 Special-Status Wildlife

Most of the indirect impacts to vegetation communities and special-status plants cited above can also affect special-status wildlife. Wildlife may be indirectly affected in the short-term by construction noise and activity, which may cause a temporary increase in wildlife avoidance of the area. In order to protect nesting birds, including Belding's Savannah sparrow, the project would avoid construction during the breeding season, from February 15 to September 15.

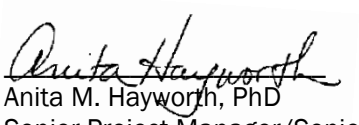
Long-term indirect impacts to special-status wildlife include behavior modification and/or habitat degradation by humans/bikes traveling off-trail and habitat degradation by invasion of exotic plants. As currently designed as part of Bayshore Bikeway Route 3, fencing would be installed along the edge of the bikeway to prevent disturbing individual special-status wildlife species and to protect their habitat by limiting the spread of invasive plant species into areas adjacent to the bikeway. The fencing is unlikely to provide predator perching opportunities since it will be of low stature and the power line towers are part of the existing environment and already provide preferred perching for predators.

5.3.4 Habitat Linkages/Wildlife Corridors

No short term indirect impacts to the habitat linkage/wildlife corridor is anticipated due to the avoidance of the breeding season and the use of fencing to provide protection from intrusion. Long term indirect impacts are similar to those described above and are avoided by provided fencing.

If you have any questions regarding the contents of this report, please contact me at 760.479.4239.

Sincerely,



Anita M. Hayworth, PhD
Senior Project Manager/Senior Biologist

Att.: *Figures 1–3*
Appendices A–F

References

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

16 U.S.C. 668–668d. Bald and Golden Eagle Protection Act.

16 U.S.C. 703–712. Migratory Bird Treaty Act, as amended.

16 U.S.C. 1531–1544. Endangered Species Act, as amended.

33 CFR 328.1–328.5. Definition of Waters of the United States.

80 FR 37053. Clean Water Rule: Definition of "Waters of the United States." Final Rule. June 29, 2015.

ACOE (U.S. Army Corps of Engineers). 1987. *Corps of Engineers Wetlands Delineation Manual.* Online ed. Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: Environmental Laboratory, U.S. Army Corps of Engineers Waterways Experiment Station. January 1987. Accessed September 1, 2010. http://www.fedcenter.gov/Bookmarks/index.cfm?id=6403&pge_id=1606.

ACOE. 2008. *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region*. Wetlands Regulatory Assistance Program publication No. ERDC/EL TR-06-18. Vicksburg, Mississippi: Environmental Laboratory, U.S. Army Corps of Engineers, U.S. Army Engineer Research and Development Center. December 2006. Accessed October 2016. http://acwc.sdp.sirsi.net/client/search/asset/1003134;jsessionid=BD1AF4EEC5E194678CCFD0647884A65E.enterprise-15000.

ACOE and EPA (U.S. Environmental Protection Agency). 2008. *Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in* Rapanos v. United States Carabell v. United States. Washington, D.C.: EPA. December 2, 2008.

AOU. 2012. "Check-List of North American Birds: List of the 2,078 Bird Species Known From the AOU Check-list Area." Accessed October 2016. http://www.aou.org/checklist/north/full.php.

Bing Maps. 2016. Color digital orthographic map of the study area. Scale: 1 inch = 90 feet. Accessed October 2016. http://www.bing.com/maps/.

California Fish and Game Code, Section 1600–1616. Division 2: Department of Fish and Game, Chapter 6: Fish and Wildlife Protection and Conservation.

California Fish and Game Code, Sections 3500–3516. Division 4: Birds and Mammals, Part 2: Birds, Chapter 1: General Provisions.

California Fish and Game Code, Section 4700. Division 4: Birds and Mammals; Part 3: Mammals; Chapter 8: Fully Protected Mammals.

California Fish and Game Code, Section 5050. Division 5: Protected Reptiles and Amphibians; Chapter 2: Fully Protected Reptiles and Amphibians.

California Fish and Game Code, Section 5500–5522. Division 6: Fish; Chapter 1: Miscellaneous.

California Herps. 2016. "Belding's Orange-throated Whiptail – *Aspidoscelis hyperythra beldingi.*" Accessed June 2016. http://www.californiaherps.com/lizards/pages/a.h.beldingi.html.

California Public Resources Code, Sections 30000–30900. California Coastal Act of 1976.

CDFG (California Department of Fish and Game). 2001. "California Department of Fish and Game (Department) Recommendations for Conducting Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) Surveys." May 9, 2001.

CDFW (California Department of Fish and Wildlife). 2019a. *Special Vascular Plants, Bryophytes, and Lichens List*. California Natural Diversity Database. August 2019. Accessed September 2019. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline.

CDFW 2019b. Rarefind. Version 5. California Natural Diversity Database. Accessed September 2019. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

CDFW. 2019c. *Special Animals List*. August 2019. Accessed September 2019. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406.

CNPS (California Native Plant Society). 2016. *Inventory of Rare and Endangered Plants* (online edition, v8-01a). Sacramento, California: CNPS. Accessed June 30, 2016. http://www.rareplants.cnps.org/.

Cripe, K. 2000. "Northern Harrier (*Circus cyaneus*)." CalPIF (California Partners in Flight), Grassland Bird Conservation Plan. Accessed August 14, 2012. http://www.prbo.org/calpif/htmldocs/species/grassland/nohaacct.html.

Crother, B.I. 2008. *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding*. 6th ed. Herpetological Circular No. 37, edited by J.J. Moriarty. Shoreview, Minnesota: Society for the Study of Amphibians and Reptiles.

Davis, J.N., and C.A. Niemela. 2008. "Northern Harrier (*Circus cyaneus*)." In *California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California*, edited by W.D. Shuford and T. Gardali, 149–155. *Studies of Western Birds 1*. Camarillo, California: Western Field Ornithologists and Sacramento, California: California Department of Fish and Game. February 4, 2008.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California Department of Fish and Game. October 1986.

Jepson Flora Project. 2015. *Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California*. Berkeley, California: University of California. Accessed January 2015. http://ucjeps.berkeley.edu/interchange/l_status_1+2.html.

Moyle, P.B. 2002. *Inland Fishes of California*. Berkeley and Los Angeles, California: University of California Press.

NABA (North American Butterfly Association). 2001. "Checklist of North American Butterflies Occurring North of Mexico." Adapted from North American Butterfly Association (NABA) Checklist English Names of North American Butterflies, edited by B. Cassie, J. Glassberg, A. Swengel, and G. Tudor. 2nd ed. Morristown, New Jersey: NABA. Accessed May 2012. http://www.naba.org/pubs/enames2.html.

NOAA (National Oceanic and Atmospheric Administration). 2019. Datums for 9410170, San Diego, San Diego Bay CA. Accessed October 29, 2019 at https://tidesandcurrents.noaa.gov/datums.html.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County.* Based on *Preliminary Descriptions of the Terrestrial Natural Communities of California*, prepared by Robert F. Holland, PhD, for the State of California, The Resources Agency, Department of Fish and Game, October 1986. March 2008.

Orsak, L.J. 1977. *The Butterflies of Orange County, California*. Center for Pathobiology Miscellaneous Publication No. 3. Irvine, California: University of California Press. Accessed July 18, 2014. http://nathistoc.bio.uci.edu/lepidopt/hesper/wanderin.htm.

Reiser, C. 2001. Rare Plants of San Diego County. Aquafir Press.

Rush, Scott A., Karen F. Gaines, William R. Eddleman, and Courtney J. Conway. 2012. "Clapper Rail (*Rallus longirostris*)." In *The Birds of North America Online*, edited by A. Poole. Ithaca, New York: Cornell Lab of Ornithology. Accessed September 2012. http://bna.birds.cornell.edu/bna/species/340.

SBMNH (Santa Barbara Museum of Natural History). 2014. "Wandering Skipper *Panoquina errans.*" In *Santa Barbara Field Guides – Butterflies*. Accessed July 18, 2014. http://www.sbnature.org/collections/invert/entom/sbbutterflies/hespanerr.htm.

SDNHM (San Diego Natural History Museum). 2002. "Butterflies of San Diego County." Revised September 2002. Accessed May 2012 at http://www.sdnhm.org/archive/research/entomology/sdbutterflies.html.

Smith, K.G., S.R. Wittenberg, R.B. Macwhirter, and K.L. Bildstein. 2011. "Northern Harrier (*Circus cyaneus*)." In *The Birds of North America Online*, edited by A. Poole. Ithaca, New York: Cornell Lab of Ornithology. Accessed September 2012. http://bna.birds.cornell.edu/bna/species/210.

Unitt, P. 2004. *San Diego County Bird Atlas*. San Diego, California: San Diego Natural History Museum.

USDA (U.S. Department of Agriculture). 2015a. "California." State PLANTS Checklist. Accessed January 2015. http://plants.usda.gov/dl_state.html.

USDA. 2015b. Web Soil Survey: Antelope Valley Area, California. USDA Natural Resources Conservation Service, Soil Survey Staff. Accessed March 25, 2015. http://websoilsurvey.nrcs.usda.gov/.

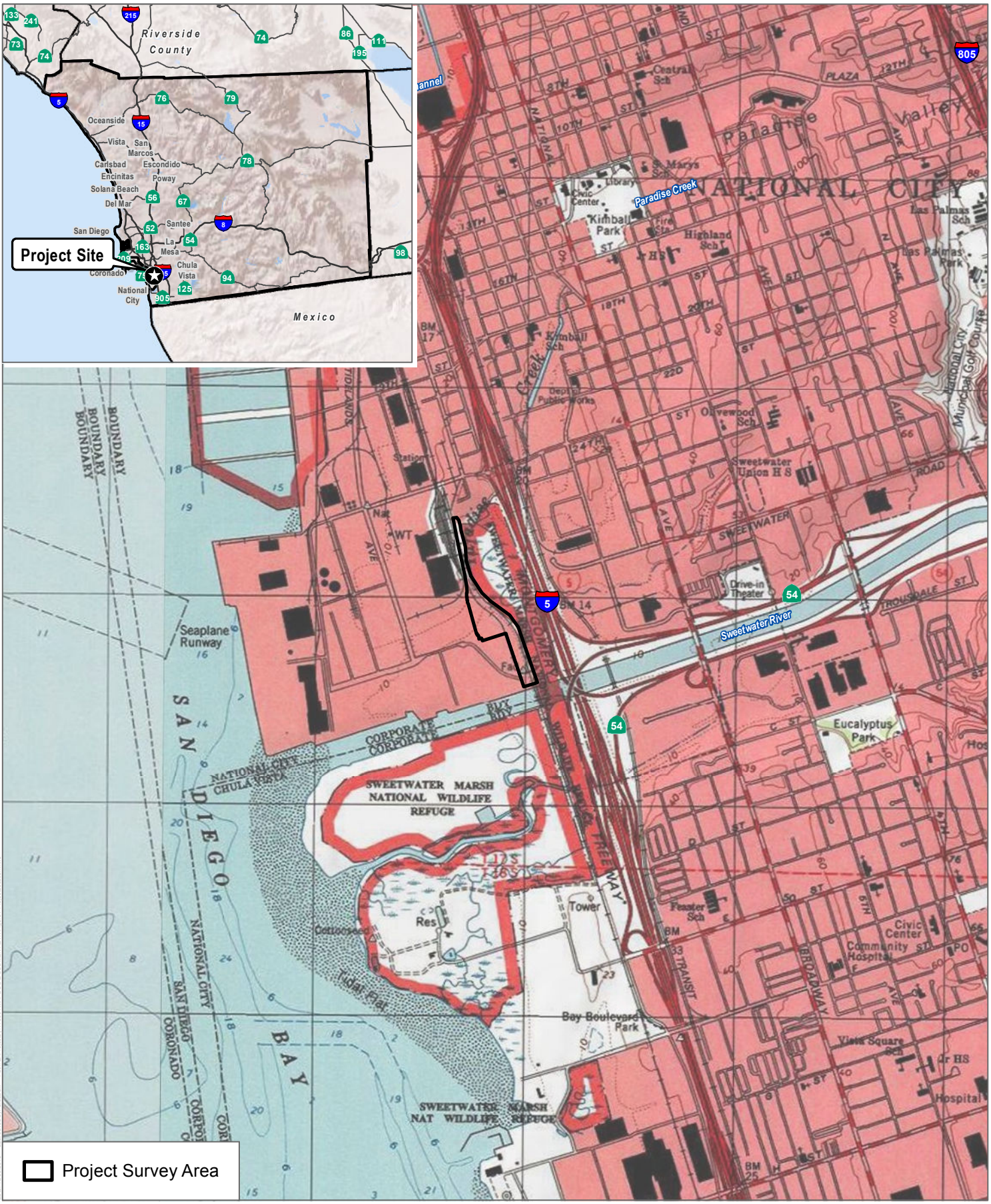
USFWS (U.S. Fish and Wildlife Service). 2008. *Birds of Conservation Concern 2008*. Prepared by U.S. Department of Interior, USFWS, Division of Migratory Bird Management, Arlington, Virginia. Accessed September 2019. https://www.fws.gov/migratorybirds/pdf/management/BCC2008.pdf.

USFWS. 2015. California Clapper Rail Survey Protocol. Prepared by U.S. Department of Interior, USFWS. June 2015. https://www.fws.gov/sfbaydelta/documents/June_2015__Final_CCR_protocol.pdf

White, Clayton M., Nancy J. Clum, Tom J. Cade and W. Grainger Hunt. 2002. "Peregrine Falcon (*Falco peregrinus*)." In *The Birds of North America Online*, edited by A. Poole. Ithaca, New York: Cornell Lab of Ornithology. Accessed September 2012. http://bna.birds.cornell.edu/bna/species/660.

Wilson, D.E., and D.M. Reeder, eds. 2005. *Mammal Species of the World: A Taxonomic and Geographic Reference*. 3rd ed. Baltimore, Maryland: Johns Hopkins University Press.

Zeiner, D.C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, eds. 1990. *California's Wildlife: Volume II. Birds.* Sacramento, California: California Department of Fish and Game.



SOURCE: USGS 7.5-Minute Series National City Quadrangle

FIGURE 1

Project Location

Biological Resources Letter Report for the Western Portion of Paradise Marsh, National City, California

DUDEK

0 1,000 2,000 Feet



SOURCE: SanGIS 2017

DUDEK

0 100 200 Feet

FIGURE 2

Biological Resources Map with Environmentally Sensitive Habitat Areas (ESHA)

Biological Resources Letter Report for the Western Portion of Paradise Marsh, National City, California



SOURCE: SanGIS 2017

DUDEK

0 95 190 Feet

FIGURE 3

Impacts to Biological Resources

Biological Resources Letter Report for the Western Portion of Paradise Marsh, National City, California

Appendix A

Photos of Bike Path



Photo 1. Proposed bike path location.



Photo 2. Wetlands location with proposed bike path to the right.



Photo 3. Proposed bike path adjacent to wetlands at south end.



Photo 4. Wetlands adjacent to proposed bike path at the far south end.



Photo 5. Looking north at wetlands east of the proposed bike path.



Photo 6. Uplands and wetlands adjacent to the proposed bike path.



Photo 7. Salt marsh areas in northern area.



Photo 8. Salt marsh adjacent to the existing bridge structure.

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Appendix B

Jurisdictional Delineation Forms and Photos of Data Stations



Data Station A1



Data Station A2



Data Station A3



Data Station A4



Data Station B1



Data Station B2



Data Station B3



Data Station 2.1



Data Station 2.2

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Appendix C

Plant Compendium

VASCULAR SPECIES

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Yucca schidigera—Mojave yucca

JUNCAGINACEAE—ARROW-GRASS FAMILY

Triglochin concinna—slender arrowgrass

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Bromus diandrus*—ripgut brome
* *Bromus madritensis*—compact brome
* *Cortaderia selloana*—Uruguayan pampas grass
Distichlis littoralis—shoregrass
Distichlis spicata—saltgrass
* *Pennisetum setaceum*—crimson fountaingrass
* *Schismus barbatus*—common Mediterranean grass
* *Stipa miliacea* var. *miliacea*—smilograss
Stipa pulchra—purple needlegrass

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

* *Carpobrotus chilensis*—sea fig
* *Carpobrotus edulis*—hottentot fig
* *Mesembryanthemum crystallinum*—common iceplant

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Malosma laurina—laurel sumac
Rhus integrifolia—lemonade sumac
* *Schinus molle*—Peruvian peppertree
* *Schinus terebinthifolius*—Brazilian peppertree

ASTERACEAE—SUNFLOWER FAMILY

Ambrosia psilostachya—Western ragweed
Artemisia californica—California sagebrush
Baccharis pulilaris—coyote brush

Baccharis salicifolia ssp. *salicifolia*—mulefat
Baccharis sarothroides—desertbroom
* *Centaurea melitensis*—Maltese star-thistle
Encelia californica—California brittle bush
Erigeron canadensis—Canadian horseweed
* *Glebionis coronaria*—crowndaisy
Heterotheca grandiflora—telegraphweed
Heterotheca sessiliflora ssp. *sessiliflora*—beach goldenaster
Isocoma menziesii var. *menziesii*—Menzies' goldenbush
* *Oncosiphon piluliferum*—stinknet
Pseudognaphalium californicum—ladies' tobacco
Pseudognaphalium stramineum—cottonbatting plant

BATACEAE—SALTWORT FAMILY

Batis maritima—turtleweed

BORAGINACEAE—BORAGE FAMILY

Heliotropium curassavicum var. *oculatum*—seaside heliotrope

CACTACEAE—CACTUS FAMILY

Opuntia littoralis—coastal prickly pear

CHENOPODIACEAE—GOOSEFOOT FAMILY

Arthrocnemum subterminale—Parish's glasswort
* *Atriplex semibaccata*—Australian saltbush
* *Bassia hyssopifolia*—fivehorn smotherweed
* *Chenopodium murale*—nettleleaf goosefoot
Salicornia pacifica—Pacific swampfire
* *Salsola tragus*—prickly Russian thistle
Suaeda esteroa—estuary seablite
Suaeda nigra—bush seepweed

CONVOLVULACEAE—MORNING-GLORY FAMILY

Cressa truxillensis—alkali weed
Cuscuta californica—chaparral dodder

CRASSULACEAE—STONECROP FAMILY

Dudleya edulis—fingertips

EUPHORBIACEAE—SPURGE FAMILY

* *Euphorbia maculata*—spotted sandmat

* *Ricinus communis*—castorbean

FABACEAE—LEGUME FAMILY

* *Acacia cyclops*—coastal wattle

* *Acacia saligna*—orange wattle

Acmispon glaber—common deerweed

* *Melilotus indicus*—annual yellow sweetclover

FRANKENIACEAE—FRANKENIA FAMILY

Frankenia salina—alkali heath

LAMIACEAE—MINT FAMILY

Salvia apiana—white sage

MYRSINACEAE—Myrsine Family

*Lysimachia arvensis—scarlet pimpernel**

MORACEAE—MULBERRY FAMILY

* *Ficus macrophylla*—bay fig

OLEACEAE—OLIVE FAMILY

* *Olea europaea*—olive

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissoniopsis bistorta—southern suncup

OROBANCHACEAE—BROOM-RAPE FAMILY

Chloropyron maritimum ssp. maritimum—salt marsh bird's-beak

PLUMBAGINACEAE—LEADWORT FAMILY

Limonium californicum—marsh rosemary

POLEMONIACEAE—PHLOX FAMILY

Eriastrum sp.—woollystar

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum var. *fasciculatum*—California buckwheat

ROSACEAE—ROSE FAMILY

Lyonothamnus floribundus—Catalina ironwood

SALICACEAE—WILLOW FAMILY

Salix gooddingii—black willow
Salix lasiolepis—arroyo willow

SIMMONDSIACEAE—JOJOBA FAMILY

Simmondsia chinensis—jojoba

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
Lycium andersonii—Anderson's boxthorn
* *Nicotiana glauca*—tree tobacco
Solanum sp.—nightshade

TAMARICACEAE—TAMARISK FAMILY

* *Tamarix ramosissima*—tamarisk

* signifies introduced (non-native) species

Appendix D1

Special-Status Plant Species Observed within the Project Site

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/CE/1B.2	Coastal dunes, marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct/0–98	Observed in the disturbed Diegan coastal sage scrub on site.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1	Chaparral (coastal), coastal dunes, coastal scrub/perennial herb/Mar–Dec/0–4019	Observed in the disturbed Diegan coastal sage scrub on site.
Suaeda esteroa	estuary seablite	None/None/1B.2	Marshes and swamps (coastal salt)/perennial herb/May–Oct (Jan)/0–16	Observed in the southern coastal salt marsh on site.

Source: List based on a search of all plant species found in the CNDDB and CNPS databases for the National City quadrangle and the seven surrounding U.S. Geological Service (USGS) quadrangles conducted in June 2019.
Notes: ft amsl = feet above mean sea level; NA = not applicable
Status Key:
FE: Federally listed as endangered
CE: State listed as endangered
CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
CRPR 3: Plants About Which More Information is Needed - A Review List
CRPR 4: Plants of Limited Distribution - A Watch List
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
References:
CDFW 2016. Rarefind. Version 5. California Natural Diversity Database. Accessed June 2016.

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Appendix D2

Special-Status Plant Species with Low Potential or Not Expected to Occur on the Project Site

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Acanthomintha ilicifolia	San Diego thorn-mint	FT/CE/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay, openings/annual herb/Apr–June/33–3150	Low potential to occur. The coastal scrub on site has been restored and there are no clay soils mapped on site.
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	Coastal dunes, coastal scrub (sandy)/annual herb/Mar–June (July)/0–33	Low potential to occur. There is suitable habitat on site, but this species was not observed during the surveys. The coastal scrub on site has been restored and there are no sandy soils mapped on site. However, this species has been recorded just north of the project site (CDFW 2016).
Adolphia californica	California adolphia	None/None/2B.1	Chaparral, coastal scrub, valley and foothill grassland; clay/perennial deciduous shrub/Dec–May/148–2428	Not expected to occur. The site is outside of the species' known elevation range.
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1	Coastal bluff scrub, coastal scrub/perennial leaf succulent/Sep–May/33–394	Low potential to occur. The coastal scrub on site has been restored and this perennial leaf succulent would likely have been observed if present.
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1	Coastal scrub/perennial shrub/Apr–June/180–509	Not expected to occur. The site is outside of the species' known elevation range.
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2	Chaparral, Sonoran desert scrub; sandy/perennial shrub/Aug–Nov/33–1640	Not expected to occur. No suitable vegetation present.
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/66–1362	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no sandy loam or clay soils mapped on site.
Aphanisma blitoides	aphanisma	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Mar–June/3–1001	Low potential to occur. The coastal scrub on site has been restored and there are no sandy or gravelly soils mapped on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1198	Not expected to occur. No suitable vegetation present.
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2	Chaparral, cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/902–5577	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Artemisia palmeri	San Diego sagewort	None/None/4.2	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb) May–Sep/49–3002	Low potential to occur. The coastal scrub on site has been restored, this perennial shrub would likely have been observed if present, and there are no sandy soils mapped on site.
Astragalus deanei	Dean's milk-vetch	None/None/1B.1	Chaparral, cismontane woodland, coastal scrub, riparian forest/perennial herb/Feb–May/246–2280	Not expected to occur. The site is outside of the species' known elevation range.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/CE/1B.1	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/3–164	Not expected to occur. No suitable vegetation present.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/10–1509	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no alkaline or clay soils mapped on site.
Atriplex pacifica	South Coast saltscale	None/None/1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar–Oct/0–459	Low potential to occur. There is suitable habitat on site, but the species was not observed during the surveys. The coastal scrub on site has been restored, but there are records of this species within approximately 3 miles of the site.
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2	Closed-cone coniferous forest, chaparral, coastal scrub; sandy/perennial stem succulent/May–June/10–1296	Low potential to occur. The coastal scrub on site has been restored, this perennial stem succulent would likely have been observed if present, and there are no sandy soils mapped on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr–May/164–1526	Not expected to occur. The site is outside of the species' known elevation range.
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay, sometimes serpentinite/perennial bulbiferous herb/May–July/98–5551	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Calochortus dunnii	Dunn's mariposa lily	None/CR/1B.2	Closed-cone coniferous forest, chaparral, valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb) Apr–June/607–6004	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2	Closed-cone coniferous forest, chaparral/perennial evergreen shrub/Apr–June/771–2477	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1969–3609	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2	Chaparral/perennial evergreen shrub/Dec–May/3–1247	Not expected to occur. No suitable vegetation present.
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Not expected to occur. No suitable vegetation present.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub (sandy), coastal dunes/annual herb/Jan–Aug/0–328	Not expected to occur. No suitable vegetation present.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/CE/1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal scrub; sandy openings/annual herb/Mar–May/10–410	Low potential to occur. The coastal scrub on site has been restored and there are no sandy or clay soils mapped on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay/annual herb/Apr–July/98–5020	Not expected to occur. The site is outside of the species' known elevation range.
Clarkia delicata	delicate clarkia	None/None/1B.2	Chaparral, cismontane woodland; often gabbroic/annual herb/Apr–June/771–3281	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Clinopodium chandleri	San Miguel savory	None/None/1B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic, or metavolcanic/perennial shrub/Mar–July/394–3527	Not expected to occur. The site is outside of the species' known elevation range.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2	Chaparral, cismontane woodland/perennial evergreen shrub/Apr–June/98–2592	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1	Coastal bluff scrub, chaparral, coastal scrub/perennial herb/June–Sep/10–377	Low potential to occur. The coastal scrub on site has been restored on site and this variety is restricted to Point Loma (Reiser 2001).
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1	Chaparral, coastal scrub/perennial stem succulent/Apr–May/98–492	Not expected to occur. The site is outside of the species' known elevation range.
Deinandra conjugens	Otay tarplant	FT/CE/1B.1	Coastal scrub, valley and foothill grassland; clay/annual herb/May–June/82–984	Not expected to occur. The site is outside of the species' known elevation range.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1	Coastal scrub, Valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Not expected to occur. The site is outside of the species' known elevation range.
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1	Coastal scrub/annual herb (hemiparasitic)/(Mar) Apr–July (Sep)/33–1148	Low potential to occur. The coastal scrub on site has been restored. In addition, this species is known from areas south of the project site and prefers seasonally dry drainages and upland adjacent to riparian habitat, which don't occur on site (Reiser 2001).

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Dudleya attenuata ssp. *attenuata*	Orcutt's dudleya	None/None/2B.1	Coastal bluff scrub, chaparral, coastal scrub; rocky or gravelly/perennial herb/May–July/10–164	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no rocky or gravelly soils mapped on site.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/Apr–June/16–1476	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no rocky, clay, or serpentinite soils mapped on site.
Dudleya brevifolia	short-leaved dudleya	None/CE/1B.1	Chaparral (maritime, openings), coastal scrub; Torrey sandstone/perennial herb/Apr–May/98–820	Not expected to occur. The site is outside of the species' known elevation range.
Dudleya variegata	variegated dudleya	None/None/1B.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/Apr–June/10–1903	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no clay soils mapped on site.
Dudleya viscida	sticky dudleya	None/None/1B.2	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/perennial herb/May–June/33–1804	Low potential to occur. The coastal scrub on site has been restored, this perennial herb would likely have been observed if present, and there are no rocky soils mapped on site.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1	Chaparral, coastal scrub; mesic/perennial evergreen shrub/(July) Sep–Nov/98–1969	Not expected to occur. The site is outside of the species' known elevation range.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/CE/1B.1	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/66–2034	Low potential to occur. No suitable vernal pools or mesic habitat on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/Feb–June/0–195	Low potential to occur. There is suitable habitat on site, but this species was not observed during the surveys. The coastal scrub on site has been restored and there are no sandy soils mapped on site. The nearest CNDDB record is approximately 9 miles west of the site in Point Loma.
Euphorbia misera	cliff spurge	None/None/2B.2	Coastal bluff scrub, coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug (Oct)/33–1640	Low potential to occur. The coastal scrub on site has been restored, this perennial shrub would likely have been observed if present, and there are no rocky soils mapped on site.
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/perennial stem succulent/May–June/10–1476	Low potential to occur. The coastal scrub on site has been restored and this perennial stem succulent would likely have been observed if present.
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	Coastal dunes, marshes and swamps (coastal salt), playas/perennial herb/May–July/0–33	Low potential to occur. Suitable coastal salt marsh habitat on site and there is a CNDDB record in the immediate vicinity of the site (CDFW 2016). However, this species was not observed during the surveys.
Fremontodendron mexicanum	Mexican flannelbush	FE/CR/1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/33–2349	Not expected to occur. No suitable vegetation present.
Galium proliferum	desert bedstraw	None/None/2B.2	Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland; rocky, carbonate/annual herb/Mar–June/3904–5348	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1	Coastal scrub (mesic), vernal pools; soil/ephemeral liverwort/N.A./33–1969	Low potential to occur. No suitable vernal pools or mesic coastal scrub on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Grindelia hallii	San Diego gumplant	None/None/1B.2	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/perennial herb/May–Oct/607–5725	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2	Chaparral, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–May/66–3133	Low potential to occur. The coastal scrub on site has been restored and there are no clay soils mapped on site.
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1	Closed-cone coniferous forest, chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./262–4921	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2	Chaparral, coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/33–443	Low potential to occur. There is suitable habitat on site, but this species was not observed during the surveys. There are two occurrences of this variety within 1 mile of the site and decumbent goldenbush is tolerant of disturbance (CDFW 2016).
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	Marshes and swamps, playas/perennial herb/Apr–Oct/33–1640	Low potential to occur. This species is typically associated with freshwater creeks or intermittent streambeds, which do not occur on site (Reiser 2001).
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1	Marshes and swamps (coastal salt), playas, vernal pools/annual herb/Feb–June/3–4003	Low potential to occur. There is suitable coastal salt marsh on site and there are two records of Coulter's goldfields within 1 mile of the site (CDFW 2016). However, this species was not observed during the surveys.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2	Closed-cone coniferous forest, Chaparral, Cismontane woodland/perennial shrub/Apr–July/1705–4495	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic/perennial shrub/June–July/1001–3297	Not expected to occur. The site is outside of the species' known elevation range.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3	Chaparral, coastal scrub/annual herb/Jan–July/3–2904	Low potential to occur. The coastal scrub on site has been restored.
Leptosyne maritima	sea dahlia	None/None/2B.2	Coastal bluff scrub, coastal scrub/perennial herb/Mar–May/16–492	Low potential to occur. The coastal scrub on site has been restored.
Mobergia calculiformis	light gray lichen	None/None/3	Coastal scrub (?); on rocks/crustose lichen (saxicolous)/N.A./33–33	Low potential to occur. The coastal scrub on site has been restored.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2	Chaparral, cismontane woodland/perennial rhizomatous herb/June–Aug/984–5167	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Monardella stoneana	Jennifer's monardella	None/None/1B.2	Closed-cone coniferous forest, chaparral, coastal scrub, riparian scrub; usually rocky intermittent streambeds/perennial herb/June–Sep/33–2592	Low potential to occur. The coastal scrub on site has been restored and no rocky intermittent streambeds occur on site.
Monardella viminea	willowy monardella	FE/CE/1B.1	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/164–738	Not expected to occur. The site is outside of the species' known elevation range.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1	Valley and foothill grassland, vernal pools (alkaline)/annual herb/Mar–June/66–2100	Not expected to occur. No suitable vegetation present.
Nama stenocarpa	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/16–1640	Not expected to occur. No suitable freshwater marsh/swamp habitat on site.
Navarretia fossalis	spreading navarretia	FT/None/1B.1	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/98–2149	Not expected to occur. The site is outside of the species' known elevation range.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools; mesic/annual herb/Apr–July/10–3970	Low potential to occur. No suitable vernal pools or mesic habitat on site.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2	Coastal dunes/annual herb/Apr–Sep/0–328	Not expected to occur. No suitable vegetation present.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2	Coastal dunes, desert dunes, Sonoran desert scrub/annual herb/(Mar) Apr–May/-164–1312	Not expected to occur. No suitable vegetation present.
Orcuttia californica	California Orcutt grass	FE/CE/1B.1	Vernal pools/annual herb/Apr–Aug/49–2165	Not expected to occur. No suitable vegetation present.
Ornithostaphylos oppositifolia	Baja California birdbush	None/CE/2B.1	Chaparral/perennial evergreen shrub/Jan–Apr/180–2625	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2	Coastal bluff scrub, coastal dunes, coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/10–1001	Low potential to occur. The coastal scrub on site has been restored and there are no sandy soils mapped on site.
Phacelia stellaris	Brand's star phacelia	FC/None/1B.1	Coastal dunes, coastal scrub/annual herb/Mar–June/3–1312	Low potential to occur. The coastal scrub on site has been restored.
Pogogyne abramsii	San Diego mesa mint	FE/CE/1B.1	Vernal pools/annual herb/Mar–July/295–656	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pogogyne nudiuscula	Otay Mesa mint	FE/CE/1B.1	Vernal pools/annual herb/May–July/295–820	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; sandy, gravelly/perennial herb/(July)Aug–Nov(Dec)/0–6890	Low potential to occur. There is suitable habitat on site, but this species was not observed during the surveys. The coastal scrub on site has been restored and there are no sandy soils mapped on site. The nearest CNDDB record is more than 15 miles northeast of the site.
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1	Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr (Aug)/49–1312	Low potential to occur. The coastal scrub on site has been restored, this perennial evergreen shrub would likely have been observed if present, and there are no sandy or clay loam soils mapped on site.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2	Chaparral, cismontane woodland/perennial evergreen shrub/Feb–Apr/98–1148	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Rosa minutifolia	small-leaved rose	None/CE/2B.1	Chaparral, coastal scrub/perennial deciduous shrub/Jan–June/492–525	Not expected to occur. The site is outside of the species' known elevation range.
Salvia munzii	Munz's sage	None/None/2B.2	Chaparral, coastal scrub/perennial evergreen shrub/Feb–Apr/377–3494	Not expected to occur. The site is outside of the species' known elevation range.
Senecio aphanactis	chaparral ragwort	None/None/2B.2	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/annual herb/Jan–Apr/49–2625	Low potential to occur. The coastal scrub on site has been restored.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; alkaline, mesic/perennial herb/Mar–June/45–5020	Low potential to occur. The coastal scrub on site has been restored and this perennial herb would likely have been observed if present.
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1	Chaparral, coastal scrub; openings, soil/ephemeral liverwort/N.A./295–1969	Not expected to occur. The site is outside of the species' known elevation range.
Stemodia durantifolia	purple stemodia	None/None/2B.1	Sonoran desert scrub (often mesic, sandy)/perennial herb/Jan–Dec/591–984	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3	Chaparral, lower montane coniferous forest/perennial herb/May–Aug/2198–8202	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Stylocline citroleum	oil neststraw	None/None/1B.1	Chenopod scrub, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–Apr/164–1312	Not expected to occur. The site is outside of the species' known elevation range.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2	Chaparral, coastal scrub/perennial deciduous shrub/Apr–May/541–3281	Not expected to occur. The site is outside of the species' known elevation range.
Texosporium sancti-jacobi	woven-spored lichen	None/None/3	Chaparral (openings); on soil, small mammal pellets, dead twigs, and on *Selaginella* spp./crustose lichen (terricolous)/N.A./951–2165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Scientific Name	Common Name	Status (Federal/ State/ CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (ft amsl)	Potential to Occur
Tortula californica	California screw-moss	None/None/1B.2	Chenopod scrub, valley and foothill grassland; sandy, soil/moss/N.A./33–4790	Not expected to occur. No suitable vegetation present.

Source: List based on a search of all plant species found in the CNDDB and CNPS databases for the National City quadrangle and the seven surrounding U.S. Geological Service (USGS) quadrangles conducted in June 2019.
Notes: ft amsl = feet above mean sea level; NA = not applicable
Status Key:
FE: Federally listed as endangered
FT: Federally listed as threatened
FC: Federal Candidate for listing
DL: Delisted
CE: State listed as endangered
CT: State listed as threatened
CR: State Rare
CRPR 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
CRPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
CRPR 2A: Plants Presumed Extirpated in California, But More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
CRPR 3: Plants About Which More Information is Needed - A Review List
CRPR 4: Plants of Limited Distribution - A Watch List
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)
References:
CDFW 2016. Rarefind. Version 5. California Natural Diversity Database. Accessed June 2016.
Reiser, C.H. 2001. *Rare Plants of San Diego County*. Aquafir Press. 2001 edition.

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Appendix E

Wildlife Compendium

BIRDS

BLACKBIRDS, ORIOLES and ALLIES

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS & BUSHTITS

Psaltriparus minimus—bushtit

Cormorants

PHALACROCORACIDAE—CORMORANTS

Phalacrocorax auritus—double-crested cormorant

FALCONS

FALCONIDAE—CARACARAS & FALCONS

Falco peregrinus anatum—American peregrine falcon

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Tyrannus vociferans—Cassin's kingbird

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Pandion haliaetus—osprey

HERONS and BITTERNS

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

Ardea alba—great egret
Ardea herodias—great blue heron
Bubulcus ibis—cattle egret
Egretta thula—snowy egret

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird
Selasphorus sp.—Allen's/rufous hummingbird

JAYS, MAGPIES, and CROWS

CORVIDAE—CROWS & JAYS

Corvus corax—common raven

KINGFISHERS

ALCEDINIDAE—KINGFISHERS

Megaceryle alcyon—belted kingfisher

LARKS

ALAUDIDAE—LARKS

Eremophila alpestris—horned lark

MOCKINGBIRDS and THRASHERS

MIMIDAE—MOCKINGBIRDS & THRASHERS

Mimus polyglottos—northern mockingbird

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow
Melozone crissalis—California towhee
Passerculus sandwichensis beldingi—Belding's savannah sparrow
Zonotrichia leucophrys—white-crowned sparrow

PELICANS

PELECANIDAE—PELICANS

Pelecanus erythrorhynchos—American white pelican

PIGEONS and DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

* *Columba livia*—rock pigeon (rock dove)

* *Streptopelia decaocto*—Eurasian collared-dove

SHOREBIRDS

RECURVIROSTRIDAE—STILTS & AVOCETS

Himantopus mexicanus—black-necked stilt

Recurvirostra americana—American avocet

CHARADRIIDAE—LAPWINGS & PLOVERS

Charadrius vociferus—killdeer

Pluvialis squatarola—black-bellied plover

SCOLOPACIDAE—SANDPIPERS, PHALAROPES, & ALLIES

Actitis macularius—spotted sandpiper

Limosa fedoa—marbled godwit

Tringa melanoleuca—greater yellowlegs

Tringa semipalmata—willet

STARLINGS and ALLIES

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow

Petrochelidon pyrrhonota—cliff swallow

Stelgidopteryx serripennis—northern rough-winged swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

TERNS and GULLS

LARIDAE—GULLS, TERNS, & SKIMMERS

Larus occidentalis—western gull

Sterna forsteri—Forster's tern

WATERFOWL

ANATIDAE—DUCKS, GEESE, & SWANS

Anas platyrhynchos—mallard

Aythya marila—greater scaup

Bucephala albeola—bufflehead

Spatula discors—blue-winged teal

Mareca americana—American wigeon

WOOD WARBLERS and ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson's warbler

Geothlypis trichas—common yellowthroat

Oreothlypis celata—orange-crowned warbler

Setophaga coronata—yellow-rumped warbler

WRENS

TROGLODYTIDAE—WRENS

Cistothorus palustris—marsh wren

REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

MAMMALS

DOMESTIC

FELIDAE—CATS

* *Felis catus*—domestic cat

HARES and RABBITS

LEPORIDAE—HARES AND RABBITS

Sylvilagus bachmani—brush rabbit

INVERTEBRATES

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, & COPPERS

Brephidium exile—western pygmy-blue
Icaricia acmon acmon—Acmon blue
Leptotes marina—marine blue
Strymon melinus—gray hairstreak

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Junonia coenia—common buckeye
Nymphalis antiopa—mourning cloak
Vanessa annabella—west coast lady

HESPERIIDAE—SKIPPERS

Panoquina errans—wandering skipper

PIERIDAE—WHITES AND SULFURS

Nathalis iole—dainty Sulphur

MOTHS

SPHINGIDAE—HAWK MOTHS

Hyles lineata—white-lined sphinx moth

* signifies introduced (non-native) species

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Appendix F1

Special-Status Wildlife Species Observed or with a Moderate Potential to Occur on the Project Site

Common Name	Scientific Name	Status (Federal/ State)	Habitat Preferences/ Requirements	Potential to Occur
Reptiles				
orange-throated whiptail	*Aspidoscelis hyperythra*	None/WL	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Moderate potential to occur, but was not observed during surveys. Moderately suitable restored coastal sage scrub on site, but limited in acreage. The nearest CNDDB record for this species is approximately 2 miles.
Birds				
Cooper's hawk	*Accipiter cooperii* (nesting)	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Observed flying over the site. Not expected to nest. No suitable nesting habitat.
southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	None/WL	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Moderate potential to occur, but was not observed during surveys. Moderately suitable disturbed habitat and restored coastal sage scrub on site, but limited in acreage. The nearest CNDDB record for this species is approximately 7 miles southeast of the study area.
northern harrier	*Circus hudsonius* (nesting)	None/SSC	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Moderate potential to occur. Moderate potential for foraging activity. No habitat for nesting. The nearest CNDDB record for this species is approximately 7 miles south of the study area, within the Tijuana River Valley.
yellow rail	*Coturnicops noveboracensis*	BCC/SSC	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Moderate potential to winter. Yellow rails breed in Canada and northern U.S., but can spend the winter in San Diego County. The nearest CNDDB record for this species is approximately 5 miles north of the study area, within the vicinity of the San Diego Bay.

Common Name	Scientific Name	Status (Federal/ State)	Habitat Preferences/ Requirements	Potential to Occur
American peregrine falcon	*Falco peregrinus anatum* (nesting)	(FDL)/(SDL), FP	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Observed. No suitable nesting habitat found on site but may forage on site within open marsh habitat.
osprey	*Pandion haliaetus* (nesting)	None/WL	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Observed flying in-transit over site. Not expected to breed. No suitable nesting habitat present.
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	None/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (*Salicornia* spp.)	Observed. Family group observed foraging in Paradise Marsh along the eastern edge of the site.
American white pelican	*Pelecanus erythrorhynchos* (nesting colony)	None/SSC	Nests colonially on sandy, earthen, or rocky substrates on isolated islands in freshwater lakes; minimal disturbance from predators; access to foraging areas on inland marshes, lakes, or rivers; winters on shallow coastal bays, inlets, and estuaries	Observed flying over the southern end of the study area. No suitable nesting habitat present.
double-crested cormorant	*Phalacrocorax auritus* (nesting colony)	None/WL	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Observed foraging just outside of the study area but is not expected to nest due to lack of riparian trees.
Invertebrates				
wandering skipper	*Panoquina errans*	None/None[1]	Saltmarsh	Observed landing on suitable salt marsh habitat on site. The nearest CNDDB record for this species is approximately 6 miles southwest of the study area along the coast.

Source: List based on a search of all plant species found in the CNDDB and CNPS databases for the National City quadrangle and the seven surrounding U.S. Geological Service (USGS) quadrangles conducted in July 2016.
Notes: ft amsl = feet above mean sea level; NA = not applicable
Status Key:
Federal Designations:
BCC U.S. Fish and Wildlife Service: Birds of Conservation Concern
FC Candidate for federal listing as threatened or endangered
(FDL) Federally delisted; monitored for 5 years

FE Federally listed endangered
FT Federally listed as threatened
FPT Federally proposed threatened

State Designations:

SSC California Special Concern Species
FP California Department of Fish and Wildlife Fully Protected Species
WL California Department of Fish and Wildlife Watch List Species
SE State listed as endangered
ST State listed as threatened
(SDL) State delisted

[1] Other Designations:

NT Near Threatened by the International Union for Conservation of Nature

References:

CDFW (California Department of Fish and Wildlife). 2019. Special Animals List. August 2019. Accessed September 2019. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406.

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Appendix F2

Special-Status Wildlife Species with Low Potential or Not Expected to Occur on the Project Site

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
Amphibians				
western spadefoot	*Spea hammondii*	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Low potential to occur. No suitable creeks, streams or pools on site to support this species. The nearest CNDDB record for this species is approximately 5 miles southwest of the study area.
arroyo toad	*Anaxyrus californicus*	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Reptiles				
coast patch-nosed snake	*Salvadora hexalepis virgultea*	None/SSC	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Low potential to occur. No suitable arid habitats or chaparral on site. Site is generally too coastal to support this species. The nearest CNDDB record for this species is approximately 14 miles southeast of the study area.
Coronado skink	*Plestiodon skiltonianus interparietalis*	None/SSC	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Not expected to occur. No suitable vegetation present.
green turtle	*Chelonia mydas*	FT/None	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds	Not expected to occur. No suitable vegetation present.
San Diego ringneck snake	*Diadophis punctatus similis*	None/None	Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats	Not expected to occur. No suitable vegetation present.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
Southern California legless lizard	*Anniella stebbinsi*	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. Soils generally too compact and clayey for this species.
coast horned lizard	*Phrynosoma blainvillii*	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Low potential to occur. Limited suitable sandy soils within study area. Site is generally too coastal to support this species. The nearest CNDDB record for this species is approximately 4 miles south of the study area.
red diamondback rattlesnake	*Crotalus ruber*	None/SSC	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Not expected to occur. No suitable vegetation present.
coastal whiptail	*Aspidoscelis tigris stejnegeri*	None/None	Open areas in semiarid grasslands, scrublands, and woodlands	Not expected to occur. No suitable vegetation present.
two-striped gartersnake	*Thamnophis hammondii*	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Low potential to occur. No suitable water bodies located within the study area. The nearest CNDDB record for this species is approximately 6.5 miles south of the study area.
San Diego banded gecko	*Coleonyx variegatus abbotti*	None/SSC	Rocky areas within coastal scrub and chaparral	Not expected to occur. The site is outside of the species' known geographic range.
Baja California coachwhip	*Masticophis fuliginosus*	None/SSC	In California restricted to southern San Diego County, where it is known from grassland and coastal sage scrub. Open areas in grassland and coastal sage scrub.	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Birds				
burrowing owl	*Athene cunicularia (burrow sites and some wintering sites)*	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur. Soils generally too compact with no existing burrows. The nearest CNDDB record for this species is approximately 1.5 miles north of the study area.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
California black rail	*Laterallus jamaicensis coturniculus*	BCC/ST, FP	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. Extirpated from San Diego County
grasshopper sparrow	*Ammodramus savannarum (nesting)*	None/SSC	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Not expected to occur. No suitable vegetation present.
Swainson's hawk	*Buteo swainsoni (nesting)*	BCC/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur. No suitable vegetation present.
tricolored blackbird	*Agelaius tricolor (nesting colony)*	BCC/SSC	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable emergent wetland habitat found on site. The nearest CNDDB record for this species is approximately 8 miles northeast of the study area.
yellow warbler	*Setophaga petechia (nesting)*	BCC/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to occur. No suitable vegetation present.
coastal cactus wren	*Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)*	BCC/SSC	Southern cactus scrub patches	Not expected to occur. Restored coastal sage scrub on site is extremely limited in acreage. The nearest CNDDB record for this species is approximately 3 miles east of the study area.
coastal California gnatcatcher	*Polioptila californica californica*	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Low potential to occur. Moderately suitable restored coastal sage scrub on site although limited in size and extremely isolated. The nearest CNDDB record for this species is approximately 4.0 miles east of the study area.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
least Bell's vireo	*Vireo bellii pusillus (nesting)*	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No suitable vegetation present.
southwestern willow flycatcher	*Empidonax traillii extimus (nesting)*	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable vegetation present.
yellow-breasted chat	*Icteria virens (nesting)*	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. No suitable vegetation present.
prairie falcon	*Falco mexicanus* (nesting)	BCC/WL	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to occur. No suitable vegetation present.
Bell's sage sparrow	*Artemisiospiza belli belli*	BCC/WL	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Low potential to occur. Moderately suitable restored coastal sage scrub on site although limited in size and extremely isolated. The nearest CNDDB record for this species is approximately 8 miles northeast of the study area.
California brown pelican	*Pelecanus occidentalis californicus* (nesting colonies and communal roosts)	FDL/SDL, FP	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. No suitable vegetation present. Habitat assessment determined no habitat on site.
California horned lark	*Eremophila alpestris actia*	None/WL	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Not expected to occur. No suitable vegetation present.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
California least tern	*Sternula antillarum browni (nesting colony)*	FE/SE, FP	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. Species was not observed during focused surveys. No sandy beaches and extremely limited and isolated tidal flats for nesting. Extremely limited open water for foraging. The nearest CNDDB record for this species is approximately 0.5 miles south in the Sweetwater Marsh.
least bittern	*Ixobrychus exilis (nesting)*	BCC/SSC	Nests in freshwater and brackish marshes with dense, tall growth of aquatic and semi-aquatic vegetation	Not expected to occur. No suitable vegetation present.
western snowy plover	*Charadrius alexandrinus nivosus (nesting)*	FT, BCC/SSC	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. Species was not observed during focused surveys. No sandy beaches for nesting on site. Limited and isolated tidal flats for foraging. The nearest CNDDB record for this species is approximately 0.5 miles from the study area, located in the Sweetwater Marsh.
western yellow-billed cuckoo	*Coccyzus americanus occidentalis (nesting)*	FT, BCC/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable vegetation present.
light-footed Ridgway's rail	*Rallus obsoletus levipes*	FE/SE, FP, RWL	Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. Requires dense growth of either pickleweed or cordgrass for nesting or escape cover; feeds on mollusks and crustaceans.	Not expected to occur. Species was not observed during focused surveys. Moderately suitable foraging habitat. The species is known to occur within nearby areas where suitable habitat is present. The nearest CNDDB record for this species is within marsh habitat approximately 1 mile south of the study area.
Fishes				
southern steelhead - southern California DPS	*Oncorhynchus mykiss irideus pop. 10*	FE/None	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable waters present.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
Mammals				
Pacific pocket mouse	*Perognathus longimembris pacificus*	FE/SSC	Fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Low potential to occur. Soils compact and unsuitable for burrowing. The nearest CNDDB record for this species is approximately 6.5 miles southwest of the study area.
San Diego desert woodrat	*Neotoma lepida intermedia*	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Low potential to occur. Extremely limited suitable habitat on site. Site generally too coastal for this species. The nearest CNDDB record for this species is approximately 8 miles southeast of the study area.
big free-tailed bat	*Nyctinomops macrotis*	None/SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. No suitable vegetation present.
long-eared myotis	*Myotis evotis*	None/None	Brush, woodland, and forest habitats from sea level to 9,000 ft above MSL; prefers coniferous habitats; forages along habitat edges, in open habitats, and over water; roosts in buildings, crevices, under bark, and snags; uses caves as night roosts	Not expected to occur. No suitable vegetation present.
pallid bat	*Antrozous pallidus*	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified on site. The nearest CNDDB record for this species is approximately 1.5 miles east of the study area.
western small-footed myotis	*Myotis ciliolabrum*	None/None	Arid woodlands and shrublands, but near water; roosts in caves, crevices, mines, abandoned buildings	Not expected to occur. No suitable vegetation present.
Yuma myotis	*Myotis yumanensis*	None/None	Riparian, arid scrublands and deserts, and forests associated with water (streams, rivers, tinajas); roosts in bridges, buildings, cliff crevices, caves, mines, and trees	Not expected to occur. No suitable vegetation present.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
American badger	*Taxidea taxus*	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. No suitable habitat on site for this species. Soils are generally not friable. The nearest CNDDB record for this species is approximately 7.5 miles southeast of the study area.
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	None/SSC	Open habitat, coastal scrub, chaparral, oak woodland, chamise chaparral, mixed-conifer habitats; disturbance specialist; 0 to 3,000 feet above mean sea level	Low potential to occur. Soils compact and unsuitable for burrowing. The nearest CNDDB record for this species is approximately 13 miles north of the study area.
hoary bat	*Lasiurus cinereus*	None/None	Forest, woodland riparian, and wetland habitats; also juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes	Not expected to occur. No suitable vegetation present.
Mexican long-tongued bat	*Choeronycteris mexicana*	None/SSC	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. No suitable vegetation present.
northwestern San Diego pocket mouse	*Chaetodipus fallax fallax*	None/SSC	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Low potential to occur. Soils compact and unsuitable for burrowing. The nearest CNDDB record for this species is approximately 5.5 miles south of the study area.
pocketed free-tailed bat	*Nyctinomops femorosaccus*	None/SSC	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with dropoffs, caverns, and buildings	Not expected to occur. No suitable vegetation present.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	None/SSC	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. Suitable habitat extremely limited in acreage. Species found in the vicinity. The nearest CNDDB record for this species is approximately 4.5 miles northeast of the study area.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
silver-haired bat	*Lasionycteris noctivagans*	None/None	Old-growth forest, maternity roosts in trees, large snags 50 feet aboveground; hibernates in hollow trees, rock crevices, buildings, mines, caves, and under sloughing bark; forages in or near coniferous or mixed deciduous forest, stream or river drainages	Not expected to occur. No suitable vegetation present.
spotted bat	*Euderma maculatum*	None/SSC	Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes	Low potential to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified on site. The nearest CNDDB record for this species is approximately 19 miles northwest of the study area.
Townsend's big-eared bat	*Corynorhinus townsendii*	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. No suitable vegetation present.
western mastiff bat	*Eumops perotis californicus*	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Low potential to occur. Moderately suitable open habitats for foraging. No suitable roosting areas identified on site. The nearest CNDDB record for this species is approximately 4.5 miles south of the study area.
western red bat	*Lasiurus blossevillii*	None/SSC	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Not expected to occur. No suitable vegetation present.
western yellow bat	*Lasiurus xanthinus*	None/SSC	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. No suitable vegetation present.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
Invertebrates				
Riverside fairy shrimp	*Streptocephalus woottoni*	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No suitable vernal pools on site. The nearest CNDDB record for this species is approximately 7.5 miles southeast of the study area
San Diego fairy shrimp	*Branchinecta sandiegonensis*	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. No vernal pools found on site. The nearest CNDDB record for this species is approximately 4.5 miles southwest of the study area.
globose dune beetle	*Coelus globosus*	None/None	Inhabitant of coastal sand dune habitat; erratically distributed from Ten Mile Creek in Mendocino County south to Ensenada, Mexico	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
mesa shoulderband	*Helminthoglypta coelata*	None/None	Known only from a few locations in coastal San Diego County	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
mimic tryonia (=California brackishwater snail)	*Tryonia imitator*	None/None	Inhabits coastal lagoons, estuaries, and saltmarshes, from Sonoma County south to San Diego County	Not expected to occur. The site is outside of the species' known geographic range.
monarch	*Danaus plexippus pop. 1*	None/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
sandy beach tiger beetle	*Cicindela hirticollis gravida*	None/None	Inhabits areas adjacent to non-brackish water along the coast of California from San Francisco Bay to northern Mexico	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
senile tiger beetle	*Cicindela senilis frosti*	None/None	Inhabits marine shoreline, from Central California coast south to saltmarshes of San Diego; also found at Lake Elsinore	Not expected to occur. The site is outside of the species' known geographic range.

Common Name	Scientific Name	Status (Federal/ State/ CRPR)	Habitat Preferences/ Requirements	Potential to Occur
Thorne's hairstreak	*Callophrys thornei*	None/None	Interior cypress woodland dominated by host plant *Hesperocyparis forbesii* (Tecate cypress)	Not expected to occur. No suitable vegetation present.
western beach tiger beetle	*Cicindela latesignata latesignata*	None/None	Mudflats and beaches in coastal Southern California	Not expected to occur. No suitable vegetation present.
western tidal-flat tiger beetle	*Cicindela gabbii*	None/None	Inhabits estuaries and mudflats along the coast of Southern California	Not expected to occur. No suitable vegetation present.
California mellitid bee	*Melitta californica*	None/None	Desert regions of southwestern Arizona, southeastern California, and Baja California, Mexico; also collected from Torrey Pines, San Diego County	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present.
Hermes copper	*Lycaena hermes*	FC/None	Coastal sage scrub, southern mixed chaparral supporting at least 5% cover of host plant *Rhamnus crocea*. Adults visit *Eriogonum fasciculatum* and *Helianthus gracilentus*. On well-drained hillsides and canyon bottoms, coastal San Diego County south to Santo Tomas, Baja California.	Not expected to occur. Although host plant *Eriogonum fasciculatum* is found on site, no larval host plant *Rhamnus crocea* is found within coastal sage scrub habitat on site. The nearest CNDDB record for this species is approximately 8 miles northeast of the study area.
quino checkerspot butterfly	*Euphydryas editha quino*	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clat; host plants include *Plantago erecta*, *Antirrhinum coulterianum*, and *Plantago patagonica* (Silverado Occurrence Complex).	Not expected to occur. No suitable habitat for this species on site. Host plant not observed. The nearest CNDDB record for this species is approximately 10 miles southeast of the study area.

Source: List based on a search of all plant species found in the CNDDB and CNPS databases for the National City quadrangle and the seven surrounding U.S. Geological Service (USGS) quadrangles conducted in July 2016.
Notes: ft amsl = feet above mean sea level; NA = not applicable
Status Key:
Federal Designations:
BCC U.S. Fish and Wildlife Service: Birds of Conservation Concern
FC Candidate for federal listing as threatened or endangered

(FDL) Federally delisted; monitored for 5 years
FE Federally listed endangered
FT Federally listed as threatened
FPT Federally proposed threatened

State Designations:

SSC California Special Concern Species
FP California Department of Fish and Wildlife Fully Protected Species
WL California Department of Fish and Wildlife Watch List Species
SE State listed as endangered
ST State listed as threatened
(SDL) State delisted

References:

CDFW 2016. Rarefind. Version 5. California Natural Diversity Database. Accessed June 2016.

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