APPENDIX L
GREENHOUSE GAS ASSESSMENT

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Tierra Norte
Planned Block Development – Overlay District
City of Oceanside, CA

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November 15, 2021

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EXECUTIVE SUMMARY

This greenhouse gas assessment was prepared according to guidelines established within the California Global Warming Solutions Act of 2006 – Assembly Bill 32 (AB32), Senate Bill 97 (SB97), California Environmental Quality Act (CEQA) and SB32. Greenhouse Gases (GHGs) analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simplify GHG calculations, both CH_4 and N_2O are converted to equivalent amounts of CO_2 and are identified as carbon dioxide equivalent (CO_2e).

The Project site consists of two separate parcels located at 4617 and 4665 North River Road (APNs 157-060-17 & 157-060-40) located along the south side of North River Road, 0.5 miles east of Douglas Drive in the North Valley Neighborhood in the City of Oceanside. The project is proposing a Planned Block Development (PBD) Overlay District consisting of a medium density residential in-fill development with a dwelling unit 'cap' with a maximum allowance of 400 dwelling units for the entire district overlay. A range of housing types can be provided as part of appropriately scaled medium density developments and may include small lot single-family homes, detached condominiums, townhomes, courtyard clusters, duplex homes, and garden apartments.

Project design features (PDFs) have been included in this Project. The applicant has agreed to implement all PDFs, which will be included in the Project's Conditions of Approval and are shown in Section 1.4 of this report.

During construction of the Project, it is expected that approximately 1,414.35 Metric Tons (MT) of CO_2e will be generated. Given this, the Project would generate 47.15 MT CO_2e per year over the amortized 30-year minimum life of the Project. After Construction and during operations of the Project, a combined GHG emissions of 3,172.26 MT CO_2e is expected. The Project is consistent with the City's General Plan (Housing Element), and the Project is also consistent with the City's Climate Action Plan (CAP) measures to reduce GHG emissions.

Based on this CAP, the Project would be required to generate fewer service population emission than 3.5 MT CO_2e in 2025. The Project was found to generate 3,172.26 MT CO_2e with both annualized construction and annual operation GHG emissions averaged over a Project population of 1,168 persons. Given this, the Project would have a projected GHG emission rate of 2.72 MT CO_2e per SP or (3,172.26 MT CO_2e/1,168 persons). Based on this, the proposed Project would generate fewer emissions than a city-specific localized efficiency metric of 3.5 MT CO_2e per SP. Given this, the Project would be found to generate a less than significant impact.

An alternative analysis has also been prepared for the project using a General Plan (GP) land use comparison. The proposed PBDP Property is currently designated as Limited Industrial (LI) by the City of Oceanside General Plan and allows a Floor Area Ratio (FAR) of 1.0 and a Max Lot Coverage

of 75%. The site is 25.6 acres, but 1.8 acres are part of dedicated rights-of-way which are not included in density or site intensity calculations. Given this, the technical gross site area is only 23.8 acres and could accommodate a facility consisting of up to 1,000,000 SF.

The GP Buildout Scenario was found to generate as much as 6,851.42 MT CO_2e. Based on this, the proposed PBD Overlay District to allow for 400 residential uses (which would generate 3,172.26 MT CO_2e) would be a less intense land use with respect to GHG emissions generation. Given this, the proposed project would not conflict with the General Plan and would generate less than significant GHG impacts within the City of Oceanside.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this GHG assessment is to provide documentation in support of the City's CEQA compliance requirement. The proposed Project's GHG emissions impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines which are (14 CCR 15000 et seq.):

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

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

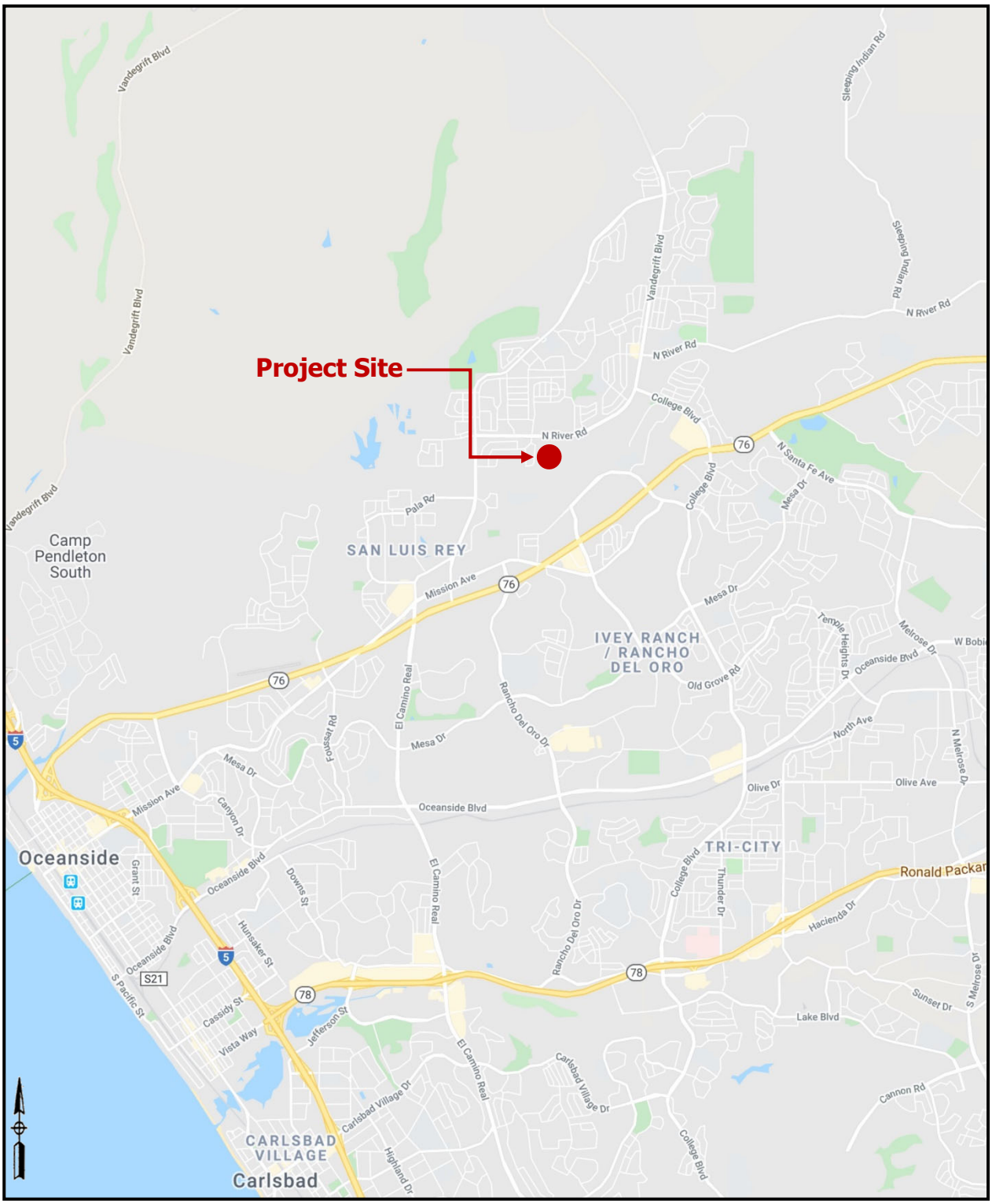
1.2 Project Location

The proposed Tierra Norte Planned Block Development Overlay District includes two (2) separate parcels located at 4617 and 4665 North River Road (APNs 157-060-17 & 157-060-40). These properties comprise approximately 25.6 acres of land located on the south side of North River Road generally between Avenida Descanso and Calle Montecito in the North Valley Neighborhood of Oceanside.

Parcel A, the eastern parcel, is approximately 9.7 total acres in size and currently developed with a small office/warehouse facility. The facility on site has historically (dating to the 1960's) served as a packing warehouse utilized for produce shipping and storage operations. The offices were added at a later date to support administrative functions. The property remains today as a remnant agricultural support use with a small office and very limited shipping/warehousing operations.

Parcel B, the western parcel, comprises approximately 15.9 total acres with roughly 75% of the land area in agricultural cultivation. Several small warehouse buildings used primarily for agricultural storage and a single-family dwelling occupy remaining portions of the property. A general Project vicinity map is shown in Figure 1-A.

Figure 1-A: Project Vicinity Map



Source: (Google, 2020)

1.3 Project Description

This proposed Project seeks a Planned Block Development Plan (PBDP) for the Overlay District. The intended purpose of the PBD Planned Block Development Overlay District (PBD Overlay District) is to permit flexibility in land-use regulation and site development standards under control of the Planning Commission and City Council where flexibility or coordinated planning for a large site or a site under multiple ownership will enhance the potential for superior urban design.

The PBDP establishes the land use and development standards that will regulate future residential development proposals for the property. The PBDP also presents site planning and architectural design criteria intended to promote development of a well thought-out, highly livable residential community which is compatible with the surrounding neighborhood. Detailed site layouts and residential building designs will ultimately be identified as part of future development plans specifically proposed for the property. While a comprehensive Project may be proposed for the entire Overlay Area, it is recognized that each parcel exists under separate ownership and that multiple development plans may also be considered.

The PBDP Property is currently designated as Limited Industrial (LI) by the City of Oceanside General Plan and allows a Floor Area Ratio (FAR) of 1.0 and a Max Lot Coverage of 75%. The site is 25.6 acres, but 1.8 acres are part of dedicated rights-of-way which are not included in density or site intensity calculations. So, the technical gross site area is only 23.8 acres and could accommodate a facility consisting of roughly 1,000,000 SF. The Project proposes to establish the PBD Overlay District on this property, amend its land use designation to Medium Density - C Residential (MDC-R) and rezone the property to Medium Density Residential C (RM-C) to allow for future residential development of the site.

A medium-density residential use on this property would complement the existing residential uses located to the north and west while providing a transition from light industrial uses located to the east. Infill residential development represents an opportunity to repurpose this underutilized site by providing future housing opportunities for the Oceanside community.

A range of housing types can be provided as part of appropriately scaled medium density developments. These residential building types may include small lot single-family homes, detached condominiums, townhomes, courtyard clusters, duplex homes and garden apartments, along with various other product configurations. The MDC-R designation establishes a density range of 15.1 – 20.9 dwelling units per acre with a potential overall development range of between 359 and 497 dwelling units. However, this PBDP institutes a dwelling unit 'cap' with a maximum allowance of only 400 dwelling units for the entire overlay district. The proposed PBDP area is shown on Figure 1-B.

Figure 1-B: Proposed PBD Overlay District

Source: (Google Earth, 2020)

1.4 Project Design Features

Project design features (PDFs) have been incorporated into the Project to reduce emissions associated with operations of this Project. This report will define specifically which design features were included within the GHG estimation software and it should be expected that whenever a design feature is included within greenhouse gas modeling that those particular design features would be required for the Project to implement such that the City of Oceanside can recommend approval. If mitigation measures are required for compliance, they will be identified later in this analysis. A list of the Projects PDFs are provided below.

1. The Project would install Low Flow water fixtures in all the units.
2. All lights within the facility will be designed use LED technology and would be for both indoor and outdoor areas.
3. The Project would provide separate waste containers to allow for simpler material separations or the Project would pay for a waste collection service that recycles the materials in accordance with AB 341 to achieve a 75% waste diversion. All green waste will be diverted from landfills and recycled as mulch.
4. The Project would only install natural gas hearth units where applicable. No wood burning hearths onsite.
5. The Project would utilize Tier 4 construction Equipment or equivalent.

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Understanding Greenhouse Gasses

GHGs such as water vapor and carbon dioxide are abundant in the earth's atmosphere. These gases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation which acts like an insulator to the planet. Without these gases, the earth's ambient temperature would either be extremely hot during the day or blistering cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not sway too far in either direction.

Over the years as human activities require the use of burning fossil fuels stored carbon is released into the air in the form of CO_2 and to a much lesser extent Carbon Monoxide (CO). Additionally, over the years scientist have measured this rise in Carbon Dioxide and the general consensus is that human activities contribute to the heating of the planet. Additionally, other GHGs such as Methane and Nitrous Oxide would contribute to global warming.

GHGs of concern as analyzed in this study are Carbon Dioxide (CO_2), Methane (CH_4), and Nitrous Oxide (N_2O). To simplify GHG calculations, both CH_4 and N_2O can be converted to an equivalent amount of CO_2 or CO_2e. CO_2e is calculated by multiplying the calculated levels of CH_4 and N_2O by a Global Warming Potential (GWP). The latest California Emissions Estimator Model (CalEEMod 2016.3.2) developed by Breeze Software uses the Intergovernmental Panel on Climate Change (IPCC) 2007 report as source data for GWP factors for both CH_4 and N_2O (CAPCOA, September 2016), using the 100-year period of 25 and 298, respectively (IPCC, 2007). Furthermore, it should be noted that biogenic GHGs from the degradation of organic materials produced by human activities such as solid waste breakdown and wastewater breakdown which are also calculated within CalEEMod and presented in this report.

2.2 Existing Setting

Parcel A, the eastern parcel, is approximately 9.7 total acres in size and currently developed with a small office/warehouse facility. The facility on site has historically (dating to the 1960's) served as a packing warehouse utilized for produce shipping and storage operations. The offices were added at a later date to support administrative functions. The property remains today as a remnant agricultural support use with a small office and very limited shipping/warehousing operations.

Parcel B, the western parcel, comprises approximately 15.9 total acres with roughly 75% of the land area in agricultural cultivation. Several small warehouse buildings used primarily for

agricultural storage and a single-family dwelling occupy remaining portions of the property. The surrounding North Valley Neighborhood presents a diversity of land uses situated between Camp Pendleton on the north and the San Luis Rey River on the south. The neighborhood area is home to a number of multi-family developments and single-family subdivisions ranging from just a few years to nearly 50 years old.

Neighborhood serving commercial uses are located nearby along the North River Road corridor at intersections with Douglas Drive, College Boulevard, and Vandegrift Boulevard. The North River Village mixed-use development and San Luis Rey Bus Transit Center (SLRBTC) are also located approximately within one (1) mile of the Overlay Area at the southeast corner of the North River Road and Vandegrift Boulevard intersection.

2.3 Climate (Oceanside)

Climate within the San Diego Air Basin (SDAB) area varies dramatically over short geographical distances due to size and topography. Most of southern California is dominated by high-pressure systems for much of the year, which keeps the high desert mostly sunny and warm. Typically, during the winter months, the high pressure system drops to the south and brings cooler, moister weather from the north. Prevailing winds are generally westerly flowing towards the east for most of the year; however, during the autumn and winter, it is common for strong warm dry winds originating in the desert having a more easterly flow characteristic.

Meteorological trends within the City of Oceanside are typically cooler given the close vicinity to the ocean. Median temperatures range from approximately 55ºF in the winter to approximately 72ºF in the summer (City-Data, 2020)

3.0 CLIMATE CHANGE REGULATORY ENVIRONMENT

3.1 Federal

Massachusetts v. EPA

On April 2, 2007, in *Massachusetts v. EPA*, the Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the EPA Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs— Carbon Dioxide CO_2, CH_4, N_2O, Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride (SF_6)— in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The Administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

3.2 State

State Greenhouse Gas Targets

Executive Order S-3-05

EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

AB 32 and CARB's Climate Change Scoping Plan

In furtherance of the goals established in EO S-3-05, the Legislature enacted Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, the California Air Resources Board (CARB) is responsible for and is recognized as having the expertise to carry out and develop the programs and regulations necessary to achieve the GHG emissions reduction mandate of AB 32. Therefore, in furtherance of AB 32, CARB adopted regulations requiring the reporting and verification of GHG emissions from specified sources, such as industrial facilities, fuel suppliers and electricity importers (see Health & Safety Code Section 35830; Cal. Code Regs., tit. 17, §§95100 et seq.). CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million metric tons (MMT) CO_2e). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*) in accordance with Health and Safety Code Section 38561. The *Scoping Plan* established an overall framework for the measures that will be implemented to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The 2008 *Scoping Plan* evaluated opportunities for sector-specific reductions, integrated all CARB and Climate Action Team[1] early actions and additional GHG reduction features by both entities, identified additional measures to be pursued as regulations, and outlined the role of a cap-and-trade program. The key elements of the 2008 *Scoping Plan* include the following (CARB, 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
2. Achieving a statewide renewable energy mix of 33 percent
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions
4. Establishing targets for transportation related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard

[1] The Climate Action Team is comprised of state agency secretaries and heads of state agencies, boards and departments; these members work to coordinate statewide efforts to implement GHG emissions reduction programs and adaptation programs.

6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation

In the 2008 *Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level; i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the *Scoping Plan's* Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations (CARB, 2011). Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from the BAU conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update*). The stated purpose of the *First Update* was to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050." The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the *First Update*, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The *First Update* identified key

recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on CARB's research efforts presented in the *First Update*, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the *First Update*, CARB recalculated the state's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT CO_2e) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

In November 2017, CARB released *California's 2017 Climate Change Scoping Plan* (*Second Update*) for public review and comment (CARB, 2017). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Senate Bill (SB) 32 (discussed below). The strategy includes continuing the Cap-and-Trade Program through 2030,[2] inclusive policies and broad support for clean technologies, enhanced industrial efficiency and competitiveness, prioritization of transportation sustainability, continued leadership on clean energy, putting waste resources to beneficial use, supporting resilient agricultural and rural economics and natural and working lands, securing California's water supplies, and cleaning the air and public health. When discussing project-level GHG emissions reduction actions and thresholds, the *Second Update* states "[a]chieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." However, the *Second Update* also recognizes that such an achievement "may not be feasible or appropriate for every project … and the inability of a project to mitigate its GHG emissions to net zero does not imply the Project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA." CARB's Governing Board adopted the *Second Update* in December 2017.

EO B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim goal of reducing statewide GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG

[2] In July 2017, AB 398 was enacted into law, thereby extending the legislatively-authorized lifetime of the Cap-and-Trade Program to December 31, 2030.

emissions to 80 percent below 1990 levels by 2050 as set forth in S-3-05. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's *Scoping Plan* to express the 2030 target in terms of MMT CO_2e. The EO also calls for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets. Sector-specific agencies in transportation, energy, water, and forestry were required to prepare GHG reduction plans by September 2015, followed by a report on action taken in relation to these plans in June 2016.

SB 32 and AB 197

SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction target; make changes to CARB's membership and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to CARB as nonvoting members. The legislation further requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and identify specific information for GHG emissions reduction measures when updating the scoping plan, including information regarding the range of projected GHG emissions and air pollution reductions that result from each measure and the cost-effectiveness (including avoided social costs) of each measure (see Health & Safety Code Section 38562.7).

<u>Building Energy</u>

Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically establishes Building Energy Efficiency Standards that are designed to ensure new buildings and alterations or additions to existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. The California Energy Commission (CEC) is required by law to adopt standards every 3 years that are cost effective for homeowners over the 30-year lifespan of a building. These standards are updated to consider and incorporate new energy efficient technologies and construction methods. As a result, these standards save energy, increase electricity supply

reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2013 Title 24 standards went into effect on July 1, 2014 and were estimated to reduce energy uses between 3.8% to 36.4%, depending on the energy source and land (Architectural Energy Corporation (AEC), 2013).

The 2016 Title 24 standards, which went into effect on January 1, 2017, are the currently applicable standards. When comparing the 2013 and 2016 standards for electrical consumption, it is expected that low-rise, single-family detached homes and multi-family homes would use 12% and 15% less electricity under the 2016 standards, respectively. Similarly, implementation of the 2016 standards is expected to reduce natural gas consumption by 21% in single-family homes and 31% in multi-family homes. Newly constructed non-residential buildings are estimated to achieve a 5% reduction in electricity consumption under the 2016 standards and no significant change relative to natural gas consumption (California Energy Commission, 2015). The current version of CalEEMod used in this analysis employs, as a default parameter, the 2016 Title 24 standards to estimate GHG emissions.

The Project would be required, at a minimum, to comply with the latest version of Title 24 standards at the time the Project seeks building permits. This will likely be the 2019 standards, as those standards will go into effect on January 1, 2020. The 2019 standards continue to improve upon the 2016 standards for residential and nonresidential buildings. One of the most notable changes in the 2019 standards is the requirement for the installation of rooftop solar on residential buildings (California Energy Commission, 2017). It should be noted that the State updates these regulations every three years. Thus, throughout Project construction, buildings will need comply with the most recently adopted standards.

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen

2016 standards became effective on January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance
- Sixty-five (65) percent of construction and demolition waste must be diverted from landfills
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements; stricter water conservation, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 75 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

The newest CALGreen Standards were updated in 2019 and will become effective on January 1, 2020. The updated Code includes modifications to current codes under Division 5.1 (Planning and Design), Division 5.3 (Water Efficiency and Conservation), Division 5.4 and 5.5 (Material Conservation and Resource Efficiency) and (Environmental Quality). (California Title 24, Part 11, 2019). Should building permits be required after January 2020, CALGreen standards would be applicable.

Zero Net Energy Design Goals

As recognized in the *First Update* to the *Scoping Plan*, the California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. As background, the California Public Utilities Commission first set forth its zero net energy goals in the 2008 Energy Efficiency Strategic Plan and the 2011 Big Bold Energy Efficiency Strategies. The key policy timelines include: (1)

all new residential construction in California will be zero net energy by 2020, and (2) all new commercial construction in California will be zero net energy by 2030. As most recently defined by the CEC in its 2015 *Integrated Energy Policy Report*, a zero net energy code building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building using the CEC's Time Dependent Valuation metric. It should be noted that Title 24 (2019) which will be effective in 2020 requires rooftop solar for all new residential units.

Title 20

Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. Performance of appliances must be certified through the CEC to demonstrate compliance with standards. New appliances regulated under Title 20 include: refrigerators, refrigerator-freezers and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing for each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

Mobile Sources

AB 1493

In response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30 percent (CARB, Clean Car Standards - Pavley, Assembly Bill 1493, 2017).

EO S-1-07

Issued in January 2007, EO S-1-07 sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020. The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. CARB adopted the implementing regulation in April 2009. The regulation is expected to increase the production of biofuels, including those from alternative sources, such as algae, wood, and agricultural waste.

In 2018, CARB extended and expanded the Low Carbon Fuel Standard regulations to include a 20 percent target for reduction in carbon intensity by 2030.

SB 375

SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations (MPOs) are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan. The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, will achieve, if feasible and if implemented, the GHG reduction targets. If a SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code Section 65080(b)(2)(K), a SCS does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional metropolitan planning organizations. The targets for SANDAG adopted in 2010 are a 7 percent reduction in emissions per capita by 2020 and a 13 percent reduction by 2035; the targets are expressed as a percent change in per capita passenger vehicle GHG emissions relative to 2005.

In October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*, which contains the region's current SCS. In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region. More specifically, as set forth in CARB Executive Order G-15-075, CARB determined that SANDAG's SCS would achieve a 15 percent per capita reduction by 2020 and a 21 percent per capita reduction by 2035.

In 2018, CARB updated the SB 375 targets. For purposes of SANDAG, the updated targets include a 15 percent reduction in emissions per capita by 2020 and a 19 percent reduction by 2035. SANDAG is in the process of preparing its next SCS, which will consider whether and how the region could attain these reduction targets.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB, 2017). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75 percent less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025 (CARB, 2012).

EO B-16-12

EO B-16-12 (March 2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution of ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet. As of January 2018, the Governor has called for as many as 1.5 million EV by 2025 and up to five million EV by 2030 (Office of Governor Edmund G. Brown Jr., 2018).

SB 350

In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12).

Renewable Energy Procurement

SB 1078

SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010.

SB X1 2

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 350

SB 350 (2015) further expanded the RPS by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030 be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency.

SB 100

SB 100 (2018) has further accelerated and expanded the RPS, requiring achievement of a 50 percent RPS by December 31, 2026 and a 60 percent RPS by December 31, 2030. SB 100 also established a new statewide policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

Water

EO B-29-15

In response to drought-related concerns, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have since become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

Solid Waste

AB 939 and AB 341

In 1989, AB 939, known as the Integrated Waste Management Act (Public Resources Code Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by the year 2000.

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority

strategies that CalRecycle believes would assist the state in reaching the 75 percent goal by 2020.

Increasing the amount of commercial solid waste that is recycled, reused, or composted will reduce GHG emissions primarily by 1) reducing the energy requirements associated with the extraction, harvest, and processing of raw materials and 2) using recyclable materials that require less energy than raw materials to manufacture finished products (CalRecycle, 2018). Increased diversion of organic materials (green and food waste) will also reduce GHG emissions (CO_2 and CH_4) resulting from decomposition in landfills by redirecting this material to processes that use the solid waste material to produce vehicle fuels, heat, electricity, or compost.

3.3 Project Specific Guidelines

Appendix G of the CEQA Guidelines

Amendments to Appendix G of the CEQA Guidelines were finalized in December 2018. According to Appendix G of the CEQA Guidelines, a project would have a significant environmental impact related to GHGs if it would:

1. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.*
2. *Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.*

For purposes of this analysis, the two Appendix G checklist questions set forth above are utilized as the thresholds of significance when evaluating the environmental effects of the Project's GHG emissions. In applying these thresholds, reference is made to CEQA Guidelines Section 15064.4(b)(1)-(3).

City of Oceanside Climate Action Plan

The City of Oceanside's Climate Action Plan (CAP) seeks to align with state efforts to reduce greenhouse gas (GHG) emissions while balancing a variety of community interests: e.g., quality of life, economic development, and social equity. The CAP outlines several measures the Oceanside community will take to make progress towards meeting the State of California's 2050 GHG reduction goal. The CAP has been prepared as part of the City's General Plan and utilizes land use assumptions to estimate GHG inventories presented in the CAP. Therefore, a project would be required to conform to all General Plan policies.

California State laws governing GHG emissions within the state are generally written to conform to both the Global Warming Solutions Act of 2006 (AB 32) and Senate Bill 32 (SB 32). These laws were written to reduce GHG emissions within the state to meet goals set forth within the laws therein. The current goal for the State is to reduce GHG emissions by 40 percent below 1990 levels by 2030. To meet the requirements of the State's laws, the City of Oceanside has adopted a screening threshold of 900 metric tons of GHG's per year.

Projects exceeding the 900 MT GHG screening threshold would be required to demonstrate that GHG emissions do not exceed efficiency/service population thresholds (City of Oceanside, 2019) which are identified below:

- Projects that will be implemented prior to 2020 must show that GHG emissions related to both construction and operation will not exceed 4.0 MT CO_2e/service population per year.
- Projects that will not be implemented prior to 2020 must show that GHG emissions related to both construction and operations will not exceed 3.5 MT CO_2e/service population per year.

Additionally, it should be noted that the San Diego Association of Governments (SANDAG) has indicated that in the City of Oceanside, the average occupancy per home is 2.92 persons/unit (SANDAG, 2013).

City of Oceanside Climate Action Plan

A project's adherence to the City's General Plan can be determined through demonstrating consistency with General Plan land use assumption and policies. If a project would generate fewer GHG emissions than the maximum allowable buildout of the site under the General Plan land use designations, the project would have a less than significant GHG impact.

4.0 METHODOLOGY

4.1 Construction CO_2e Emissions Calculation Methodology

Project construction dates were estimated based on a construction start date in 2022 with construction ending in 2024. CalEEMod was utilized for all construction calculations and has been manually updated to reflect SDAPCD Rule 67 VOC paint standards and to include Tier 4 construction equipment. The Project applicant has indicated that onsite facilities which will be demolished as part of this project have a cumulative size of roughly 60,000 SF.

Table 4.1 shows the expected timeframes for the construction of all Project infrastructure, facilities, and improvements, as well as the expected number of pieces of equipment. Also, it should be noted that the below would be conservative in the event construction began/ended at a later date as annual code updates and fleet improvements typically have the effect of restricting and limiting emissions on construction equipment over time.

Table 4.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	1/1/2024	2/9/2024	
Concrete/Industrial Saws			1
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			2
Site Preparation	2/10/2024	3/8/2024	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	3/9/2024	5/10/2024	
Excavators			2
Graders			1
Rubber Tired Dozers			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Paving	5/11/2024	6/28/2024	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction	7/1/2024	3/6/2026	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating	11/28/2025	3/6/2026	
Air Compressors			1

This equipment list is based upon equipment inventory within CalEEMod. The quantity and types are based upon assumptions provided by the Project applicant.

GHG impacts related to construction will be calculated using the latest CalEEMod 2016.3.2 model which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD). CalEEMod incorporates emission factors from the EMFAC2014 model for on-road vehicle emissions and the OFFROAD2011 model for off-road vehicle emissions and are shown in ***Attachment A*** to this report. Additionally, it should be noted that default vehicle miles traveled (VMT) were updated to reflect EMFACs average miles driven per trip within the County for 2026 is shown in ***Attachment B*** to this report.

Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively minimal portion of the overall lifetime project GHG emissions. To adequately include GHG emission from construction in the lifetime/operational GHG estimates, construction emissions are amortized over a 30-year project lifetime (SCAQMD, 2008).

4.2 Operational Emissions Calculation Methodology

Once construction is completed the proposed Project would generate air pollutants and GHG emissions from daily operations which would include sources such as area, energy, mobile, solid waste and water uses, which are calculated within CalEEMod. Area Sources include landscaping, consumer products, and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas consumption. Solid waste generated in the form of trash is also considered as decomposition of organic material breaks down to form GHGs. Water and wastewater emissions from the Project generate emissions from offsite water conveyance and wastewater treatment facilities. Finally, the Project would also generate GHG through the use of carbon fuel burning vehicles for transportation. The Project specific traffic study estimated that 400 unit residential development would generate 3,200 average daily trips (LOS Engineering, Inc., 2021).

Electrical energy-intensity factors were updated within CalEEMod to reflect San Diego Gas and Electric's (SDG&E) emissions rate variations from 2009 which is the default rate data used by CalEEMod. In 2009, SDG&E achieved 10.5 percent procurement of renewable energy (California Public Utilities Commission, 2016) and in 2026 will have up to 49.2 % in place. For purposes of analysis however the State's 33% requirement was assumed. After 2020, in 2030, an additional 27% reduction would be required or 2.7% per year. Given this, SDG&E energy-intensity factors for 2026 were calculated and were modeled as such within CalEEMod as shown in Table 4.3.

Table 4.3: SDG&E Energy Intensity Factors

GHG	2009 Factors (lbs/MWh) w/10.5% RPS	2026 Factors – 46.5% Renewables (lbs/MWh)
Carbon Dioxide (CO_2)	720.49	408.95
Methane (CH_4)	0.029	0.017
Nitrous Oxide (N_2O)	0.006	0.003

As a PDF, the Project will exclusively utilize high-efficiency indoor and outdoor LED lighting in all buildings. LED indoor lighting is 75-90 percent more efficient than standard lighting. High-efficiency lighting is addressed by both the 2013 Title 24 standards (CEC, 2012) and the 2016 Title 24 standards (CEC, 2015); these standards specifically call out lighting power density requirements for non-residential land uses. However, the lighting power density requirements do not change across the two sets of Title 24 standards. Rather, as illustrated by Table 140.6-B within the 2013 and 2016 Title 24 standards, the applicable requirement is 0.60 watts per ft^2. Of note, the default parameters of the version of CalEEMod used in this analysis (along with its predecessor versions) do not account for high-efficiency lighting technologies or the 2016 Title 24. Since the project will be constructed in 2020, the project would be required to utilize Title 24 2019 lighting standards which have not been included in CalEEMod. Given this, the estimated GHG emissions from the project are conservative.

Default parameters of CalEEMod 2016.3.2 (along with its predecessor models) do not account for high-efficiency lighting technologies. For purposes of this analysis, the design feature to utilize 100 percent high-efficiency lighting would reduce energy usage from combined indoor and outdoor lighting by at least 75 percent from that estimated within CalEEMod as is discussed in the paragraph above. For purposes of this analysis only a 65 percent reduction is utilized.

Under AB 341, the project would ultimately be required to increase diversion of waste from landfills by 75%. The project would provide separate waste containers to allow for simpler material separations or would direct the project HOA to utilize a pay for a waste collection service that recycles materials offsite. Additionally, the project would provide for green waste collection so that green waste is diverted from landfills and recycled as mulch. For purposes of this analysis, a 25% reduction in solid waste-related GHGs was applied to reflect AB 341's diversion standard.

Finally, the project would not install any wood burning hearths. As a PDF the project would limit residential units to natural gas hearths only in the event that any site development plans call for heath units.

5.0 FINDINGS

5.1 Project Related Construction Emissions

Utilizing the CalEEMod inputs for the model as shown in Table 4.1 above, we find that grading and construction of the Project will produce approximately 1,414.35 MT CO_2e over the construction life of the Project. Based on SQAQMD methodology, it is recommended to average the construction emissions over the Project life which is assumed to be 30 years. Given this, the annual construction emission would be 47.15 MT CO_2e per year. A summary of the construction emissions is shown in Table 5.1 below. The analysis of GHG emissions generated during construction activities includes the application of the design features to include the application of Tier 4 Diesel Equipment.

Table 5.1: Expected Construction CO_2e Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2024	0.00	601.70	601.70	0.12	0.00	604.73
2025	0.00	674.65	674.65	0.09	0.00	676.81
2026	0.00	132.42	132.42	0.02	0.00	132.81
Total						1,414.35
Yearly Average Construction Emissions (Metric Tons/year over 30 years)						**47.15**
Expected Construction emissions are based upon CalEEMod modeling assumptions listed in Table 4.1 above.						

5.2 Project-Related Operational Emissions

As previously discussed, emissions generated from area, energy, mobile, solid waste and water uses are calculated within CalEEMod. These settings which are automatically populated throughout the model are based on the inputted land use and intensities expected at the Project site. Unless stated within this report, default values generated within CalEEMod were used. The calculated operational emissions for 2026 are identified in Table 5.2.

Based on the CalEEMod analysis, the proposed Project buildout with annualized construction emissions would generate 3,172.26 MT CO_2e annually which is shown in Table 5.2. These emissions include PDFs 1-5 shown in Section 1.4 of this report.

The Project would be consistent with the City's General Plan (Pending approval by the City) and is therefore consistent with the City's CAP assuming CAP measures are implemented on the Project. It should be noted that the design features identified above have been included

to address the requirements of the CAP and will be a requirement of this project. Based on this, a less than significant GHG impact is expected.

Table 5.2: Proposed Project Operational GHG emissions (MT/Year)

Source	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e (MT/Yr)
Area	0	319.91	319.91	0.01	0.01	321.9
Electrical Usage	0.00	324.44	324.44	0.01	0.00	325.49
Natural Gas	0	307.01	307.01	0.01	0.01	308.83
Mobile	0.00	1,971.11	1,971.11	0.10	0.00	1,973.69
Waste	28.01	0.00	28.01	1.66	0.00	69.40
Water	8.27	90.04	98.30	0.85	0.02	125.80
Total includes reductions from PDFs 1-5						3,125.11
Amortized Construction Emissions						47.15
Project Total GHG Emissions						**3,172.26**
Residents at 2.92 persons per household * 400 homes						**1,168**
MT/SP						**2.72**
Data is presented in decimal format and may have rounding errors.						

The Project would be required to generate fewer service population emission than 3.5 MT CO_2e in 2025. The Project was found to generate 3,172.26 MT CO_2e with both annualized construction and annual operation GHG emissions averaged over a Project population of 1,168 persons. Given this, the Project would have a projected GHG emission rate of 2.72 MT CO_2e per SP or (3,172.26 MT CO_2e/1,168 persons). Based on this, the proposed Project would generate fewer emissions than a city-specific localized efficiency metric of 3.5 MT CO_2e per SP. Given this, the Project would be found to generate a less than significant impact.

5.3 General Plan Operational Emissions

The PBDP Property is currently designated as LI by the City of Oceanside General Plan and allows a Floor Area Ratio (FAR) of 1.0 and a Max Lot Coverage of 75%. The site is 25.6 acres, but 1.8 acres are part of dedicated rights-of-way which are not included in density or site intensity calculations. Based on a technical gross site area is only 23.8 acres and could accommodate a facility consisting of roughly 1,000,000 SF.

GHG Emissions for the General Plan Buildout Scenario would be from both the combined construction and operational emissions. Construction Emissions would generally be similar to construction emissions generated from the proposed 400-unit residential development though have not been included for the General Plan scenario. Generally, if GHG emissions from the

GP buildout scenario are higher than the proposed project action, the proposed project action and assuming the project action adheres to the City's General Plan and CAP, the project would generate less than significant GHG impacts.

Using a similar methodology with the same CalEEMod software, the 1,000,000 SF light industrial facility was modeled. Where applicable, the same design features were included. Also, the project design assumptions with respect to VMT per trip were utilized. The CalEEMod files are provided as ***Attachment C***.

The GP Buildout Scenario would generate as much as 6,851.42 MT CO_2e as can be seen in Table 5.3. The proposed project seeks to establish a PBD Overlay District and amend its land use designation to MDC-R and rezone the property to RM-C to allow for up to 400 residential units onsite. The operational and construction emissions from the proposed development is expected to generate as much as 3,172.26 MT CO_2e as identified in Table 5.2 above. Based on this, the proposed PBD Overlay District to allow for 400 residential uses would be a less intense land use with respect to GHG emissions generation. Given this, the proposed project would not conflict with the General Plan and would generate less than significant GHG impacts within the City of Oceanside.

Table 5.3: Proposed General Plan Operational GHG emissions (MT/Year)

Source	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e (MT/Yr)
Area	0.00	0.02	0.02	0.00	0.00	0.02
Electrical Usage	0	1,200.26	1,200.26	0.0499	8.80E-03	1,204.13
Natural Gas	0.00	616.89	616.89	0.01	0.01	620.55
Mobile	0.00	3,390.78	3,390.78	0.18	0.00	3,395.19
Waste	188.78	0.00	188.78	11.16	0.00	467.70
Water	700.1	700.1	700.1	700.1	700.1	700.1
(Includes Applicable PDFs Emission Reductions)						6,387.69
General Plan Amortized Construction Emissions						0
General Plan Buildout Scenario Total GHG Emissions (Significance Threshold)						**6,851.42**
Proposed Project Action (From Table 5.2)						**3,172.26**
Significant?						**NO**
Data is presented in decimal format and may have rounding errors.						

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7.0 CERTIFICATIONS

The contents of this report represent an accurate depiction of the projected CO_2e emissions from the Project development based upon the best available information at the time of preparation.

DRAFT

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Date November 15, 2021

ATTACHMENT A

CalEEMod 2016.3.2 (400 Residential Units)

Tierra Norte PBD Overlay District

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	400.00	Dwelling Unit	25.60	400,000.00	1144

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2026
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	408.95	**CH4 Intensity (lb/MWhr)**	0.017	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2026

Land Use - Site Acreage

Construction Phase - CS

Demolition -

Architectural Coating - Rule 67 Paint

Vehicle Trips - ADT per Traffic Study...Trip Length per EMFAC 2014 model run for the County of San Diego for 2026

Woodstoves - Natural Gas Fireplace for 400 units

Area Coating - Rule 67 Psint

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	35.00	71.00
tblFireplaces	NumberGas	220.00	400.00
tblFireplaces	NumberNoFireplace	40.00	0.00

tblFireplaces	NumberWood	140.00	0.00
tblLandUse	LotAcreage	25.00	25.60
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.017
tblProjectCharacteristics	CO2IntensityFactor	720.49	408.95
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	HO_TL	7.50	5.33
tblVehicleTrips	HO_TTP	39.60	39.00
tblVehicleTrips	HS_TL	7.30	5.33
tblVehicleTrips	HS_TTP	18.80	19.00
tblVehicleTrips	HW_TL	10.80	5.33
tblVehicleTrips	HW_TTP	41.60	42.00
tblVehicleTrips	ST_TR	5.67	8.00
tblVehicleTrips	SU_TR	4.84	8.00
tblVehicleTrips	WD_TR	5.81	8.00
tblWoodstoves	NumberCatalytic	20.00	0.00
tblWoodstoves	NumberNoncatalytic	20.00	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					
2024	0.3135	2.6406	2.9032	6.7500e-003	0.5883	0.1068	0.6951	0.2337	0.0992	0.3330	0.0000	601.7035	601.7035	0.1211	0.0000	604.7308
2025	1.1466	2.1235	2.9643	7.5100e-003	0.3442	0.0720	0.4162	0.0923	0.0677	0.1600	0.0000	674.6533	674.6533	0.0862	0.0000	676.8079
2026	1.7171	0.4069	0.5861	1.4800e-003	0.0719	0.0141	0.0860	0.0193	0.0133	0.0326	0.0000	132.4169	132.4169	0.0159	0.0000	132.8143
Maximum	**1.7171**	**2.6406**	**2.9643**	**7.5100e-003**	**0.5883**	**0.1068**	**0.6951**	**0.2337**	**0.0992**	**0.3330**	**0.0000**	**674.6533**	**674.6533**	**0.1211**	**0.0000**	**676.8079**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.1217	0.5665	3.2329	6.7500e-003	0.5883	8.5400e-003	0.5968	0.2337	8.4500e-003	0.2422	0.0000	601.7030	601.7030	0.1211	0.0000	604.7303
2025	1.0092	0.7757	3.1441	7.5100e-003	0.3442	7.8700e-003	0.3521	0.0923	7.6900e-003	0.1000	0.0000	674.6530	674.6530	0.0862	0.0000	676.8075
2026	1.6894	0.1425	0.6190	1.4800e-003	0.0719	1.5500e-003	0.0735	0.0193	1.5100e-003	0.0208	0.0000	132.4168	132.4168	0.0159	0.0000	132.8142
Maximum	**1.6894**	**0.7757**	**3.2329**	**7.5100e-003**	**0.5883**	**8.5400e-003**	**0.5968**	**0.2337**	**8.4500e-003**	**0.2422**	**0.0000**	**674.6530**	**674.6530**	**0.1211**	**0.0000**	**676.8075**

Tierra Norte PBD Overlay District - San Diego County, Annual

	ROG	NOx	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	**11.23**	**71.29**	**-8.40**	**0.00**	**0.00**	**90.69**	**14.61**	**0.00**	**90.21**	**30.94**	**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)
9	**1-1-2024**	**3-31-2024**	0.9452	0.1176
10	**4-1-2024**	**6-30-2024**	0.6950	0.0868
11	**7-1-2024**	**9-30-2024**	0.6426	0.2368
12	**10-1-2024**	**12-31-2024**	0.6483	0.2424
13	**1-1-2025**	**3-31-2025**	0.5952	0.2328
14	**4-1-2025**	**6-30-2025**	0.5965	0.2301
15	**7-1-2025**	**9-30-2025**	0.6031	0.2326
16	**10-1-2025**	**12-31-2025**	1.4841	1.0996
17	**1-1-2026**	**3-31-2026**	2.1008	1.8122
		Highest	2.1008	1.8122

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	1.9334	0.3062	3.0830	1.8900e-003		0.0385	0.0385		0.0385	0.0385	0.0000	319.9114	319.9114	0.0107	5.7800e-003	321.8998
Energy	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	679.7337	679.7337	0.0214	8.3600e-003	682.7603
Mobile	0.6000	2.4077	6.0330	0.0213	2.0771	0.0171	2.0941	0.5561	0.0159	0.5719	0.0000	1,971.1108	1,971.1108	0.1032	0.0000	1,973.6907
Waste						0.0000	0.0000		0.0000	0.0000	37.3503	0.0000	37.3503	2.2073	0.0000	92.5339
Water						0.0000	0.0000		0.0000	0.0000	8.2682	96.8083	105.0764	0.8532	0.0208	132.5946
Total	**2.5644**	**2.9791**	**9.2288**	**0.0248**	**2.0771**	**0.0770**	**2.1540**	**0.5561**	**0.0758**	**0.6318**	**45.6185**	**3,067.5643**	**3,113.1827**	**3.1958**	**0.0349**	**3,203.4793**

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	1.9334	0.3062	3.0830	1.8900e-003		0.0385	0.0385		0.0385	0.0385	0.0000	319.9114	319.9114	0.0107	5.7800e-003	321.8998
Energy	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	631.4516	631.4516	0.0194	8.0100e-003	634.3224
Mobile	0.6000	2.4077	6.0330	0.0213	2.0771	0.0171	2.0941	0.5561	0.0159	0.5719	0.0000	1,971.1108	1,971.1108	0.1032	0.0000	1,973.6907
Waste						0.0000	0.0000		0.0000	0.0000	28.0128	0.0000	28.0128	1.6555	0.0000	69.4004
Water						0.0000	0.0000		0.0000	0.0000	8.2682	90.0362	98.3044	0.8530	0.0207	125.8007
Total	**2.5644**	**2.9791**	**9.2288**	**0.0248**	**2.0771**	**0.0770**	**2.1540**	**0.5561**	**0.0758**	**0.6318**	**36.2809**	**3,012.5100**	**3,048.7909**	**2.6417**	**0.0345**	**3,125.1140**

	ROG	NOx	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**	**20.47**	**1.79**	**2.07**	**17.34**	**1.15**	**2.45**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2024	2/9/2024	5	30	
2	Site Preparation	Site Preparation	2/10/2024	3/8/2024	5	20	
3	Grading	Grading	3/9/2024	5/10/2024	5	45	
4	Paving	Paving	5/11/2024	6/28/2024	5	35	
5	Building Construction	Building Construction	7/1/2024	3/6/2026	5	440	
6	Architectural Coating	Architectural Coating	11/28/2025	3/6/2026	5	71	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 810,000; Residential Outdoor: 270,000; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	273.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	288.00	43.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	58.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0299	0.0000	0.0299	4.5300e-003	0.0000	4.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0337	0.3132	0.2956	5.8000e-004		0.0144	0.0144		0.0134	0.0134	0.0000	50.9941	50.9941	0.0143	0.0000	51.3508
Total	**0.0337**	**0.3132**	**0.2956**	**5.8000e-004**	**0.0299**	**0.0144**	**0.0443**	**4.5300e-003**	**0.0134**	**0.0179**	**0.0000**	**50.9941**	**50.9941**	**0.0143**	**0.0000**	**51.3508**

3.2 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0218	8.2500e-003	1.0000e-004	2.3400e-003	4.0000e-005	2.3800e-003	6.4000e-004	4.0000e-005	6.8000e-004	0.0000	9.8430	9.8430	8.9000e-004	0.0000	9.8653
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.3000e-004	4.5200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4029	1.4029	3.0000e-005	0.0000	1.4038
Total	**1.3500e-003**	**0.0223**	**0.0128**	**1.2000e-004**	**4.1400e-003**	**5.0000e-005**	**4.2000e-003**	**1.1200e-003**	**5.0000e-005**	**1.1700e-003**	**0.0000**	**11.2459**	**11.2459**	**9.2000e-004**	**0.0000**	**11.2690**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0299	0.0000	0.0299	4.5300e-003	0.0000	4.5300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.9300e-003	0.0301	0.3492	5.8000e-004		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	50.9940	50.9940	0.0143	0.0000	51.3507
Total	**6.9300e-003**	**0.0301**	**0.3492**	**5.8000e-004**	**0.0299**	**9.2000e-004**	**0.0308**	**4.5300e-003**	**9.2000e-004**	**5.4500e-003**	**0.0000**	**50.9940**	**50.9940**	**0.0143**	**0.0000**	**51.3507**

3.2 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.8000e-004	0.0218	8.2500e-003	1.0000e-004	2.3400e-003	4.0000e-005	2.3800e-003	6.4000e-004	4.0000e-005	6.8000e-004	0.0000	9.8430	9.8430	8.9000e-004	0.0000	9.8653
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	4.3000e-004	4.5200e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4029	1.4029	3.0000e-005	0.0000	1.4038
Total	**1.3500e-003**	**0.0223**	**0.0128**	**1.2000e-004**	**4.1400e-003**	**5.0000e-005**	**4.2000e-003**	**1.1200e-003**	**5.0000e-005**	**1.1700e-003**	**0.0000**	**11.2459**	**11.2459**	**9.2000e-004**	**0.0000**	**11.2690**

3.3 Site Preparation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.2718	0.1834	3.8000e-004		0.0123	0.0123		0.0113	0.0113	0.0000	33.4571	33.4571	0.0108	0.0000	33.7276
Total	**0.0266**	**0.2718**	**0.1834**	**3.8000e-004**	**0.1807**	**0.0123**	**0.1930**	**0.0993**	**0.0113**	**0.1106**	**0.0000**	**33.4571**	**33.4571**	**0.0108**	**0.0000**	**33.7276**

3.3 Site Preparation - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.4000e-004	3.6200e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1223	1.1223	3.0000e-005	0.0000	1.1230
Total	**5.3000e-004**	**3.4000e-004**	**3.6200e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1223**	**1.1223**	**3.0000e-005**	**0.0000**	**1.1230**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.6600e-003	0.0202	0.2087	3.8000e-004		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	33.4570	33.4570	0.0108	0.0000	33.7275
Total	**4.6600e-003**	**0.0202**	**0.2087**	**3.8000e-004**	**0.1807**	**6.2000e-004**	**0.1813**	**0.0993**	**6.2000e-004**	**0.0999**	**0.0000**	**33.4570**	**33.4570**	**0.0108**	**0.0000**	**33.7275**

3.3 Site Preparation - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.4000e-004	3.6200e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1223	1.1223	3.0000e-005	0.0000	1.1230
Total	**5.3000e-004**	**3.4000e-004**	**3.6200e-003**	**1.0000e-005**	**1.4400e-003**	**1.0000e-005**	**1.4500e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1223**	**1.1223**	**3.0000e-005**	**0.0000**	**1.1230**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1952	0.0000	0.1952	0.0809	0.0000	0.0809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0724	0.7285	0.6238	1.4000e-003		0.0301	0.0301		0.0276	0.0276	0.0000	122.6689	122.6689	0.0397	0.0000	123.6608
Total	**0.0724**	**0.7285**	**0.6238**	**1.4000e-003**	**0.1952**	**0.0301**	**0.2252**	**0.0809**	**0.0276**	**0.1086**	**0.0000**	**122.6689**	**122.6689**	**0.0397**	**0.0000**	**123.6608**

3.4 Grading - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.5000e-004	9.0400e-003	3.0000e-005	3.6100e-003	2.0000e-005	3.6300e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8058	2.8058	7.0000e-005	0.0000	2.8075
Total	**1.3300e-003**	**8.5000e-004**	**9.0400e-003**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6300e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8058**	**2.8058**	**7.0000e-005**	**0.0000**	**2.8075**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1952	0.0000	0.1952	0.0809	0.0000	0.0809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.0743	0.7425	1.4000e-003		2.2800e-003	2.2800e-003		2.2800e-003	2.2800e-003	0.0000	122.6688	122.6688	0.0397	0.0000	123.6606
Total	**0.0171**	**0.0743**	**0.7425**	**1.4000e-003**	**0.1952**	**2.2800e-003**	**0.1974**	**0.0809**	**2.2800e-003**	**0.0832**	**0.0000**	**122.6688**	**122.6688**	**0.0397**	**0.0000**	**123.6606**

3.4 Grading - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	8.5000e-004	9.0400e-003	3.0000e-005	3.6100e-003	2.0000e-005	3.6300e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	2.8058	2.8058	7.0000e-005	0.0000	2.8075
Total	**1.3300e-003**	**8.5000e-004**	**9.0400e-003**	**3.0000e-005**	**3.6100e-003**	**2.0000e-005**	**3.6300e-003**	**9.6000e-004**	**2.0000e-005**	**9.8000e-004**	**0.0000**	**2.8058**	**2.8058**	**7.0000e-005**	**0.0000**	**2.8075**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0173**	**0.1667**	**0.2560**	**4.0000e-004**		**8.2000e-003**	**8.2000e-003**		**7.5400e-003**	**7.5400e-003**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.0000e-004	5.2700e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.6367	1.6367	4.0000e-005	0.0000	1.6377
Total	**7.8000e-004**	**5.0000e-004**	**5.2700e-003**	**2.0000e-005**	**2.1100e-003**	**1.0000e-005**	**2.1200e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.6367**	**1.6367**	**4.0000e-005**	**0.0000**	**1.6377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.9100e-003	0.0213	0.3027	4.0000e-004		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9100e-003**	**0.0213**	**0.3027**	**4.0000e-004**		**6.5000e-004**	**6.5000e-004**		**6.5000e-004**	**6.5000e-004**	**0.0000**	**35.0464**	**35.0464**	**0.0113**	**0.0000**	**35.3298**

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.0000e-004	5.2700e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.6367	1.6367	4.0000e-005	0.0000	1.6377
Total	**7.8000e-004**	**5.0000e-004**	**5.2700e-003**	**2.0000e-005**	**2.1100e-003**	**1.0000e-005**	**2.1200e-003**	**5.6000e-004**	**1.0000e-005**	**5.7000e-004**	**0.0000**	**1.6367**	**1.6367**	**4.0000e-005**	**0.0000**	**1.6377**

3.6 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0971	0.8873	1.0670	1.7800e-003		0.0405	0.0405		0.0381	0.0381	0.0000	153.0204	153.0204	0.0362	0.0000	153.9250
Total	**0.0971**	**0.8873**	**1.0670**	**1.7800e-003**		**0.0405**	**0.0405**		**0.0381**	**0.0381**	**0.0000**	**153.0204**	**153.0204**	**0.0362**	**0.0000**	**153.9250**

3.6 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0700e-003	0.2133	0.0649	7.3000e-004	0.0188	2.5000e-004	0.0191	5.4400e-003	2.4000e-004	5.6800e-003	0.0000	71.1886	71.1886	4.8100e-003	0.0000	71.3088
Worker	0.0564	0.0360	0.3818	1.3100e-003	0.1524	1.0200e-003	0.1534	0.0405	9.3000e-004	0.0414	0.0000	118.5173	118.5173	2.9400e-003	0.0000	118.5907
Total	**0.0624**	**0.2493**	**0.4468**	**2.0400e-003**	**0.1713**	**1.2700e-003**	**0.1725**	**0.0459**	**1.1700e-003**	**0.0471**	**0.0000**	**189.7058**	**189.7058**	**7.7500e-003**	**0.0000**	**189.8995**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0216	0.1475	1.1524	1.7800e-003		2.6900e-003	2.6900e-003		2.6900e-003	2.6900e-003	0.0000	153.0202	153.0202	0.0362	0.0000	153.9249
Total	**0.0216**	**0.1475**	**1.1524**	**1.7800e-003**		**2.6900e-003**	**2.6900e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**153.0202**	**153.0202**	**0.0362**	**0.0000**	**153.9249**

3.6 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0700e-003	0.2133	0.0649	7.3000e-004	0.0188	2.5000e-004	0.0191	5.4400e-003	2.4000e-004	5.6800e-003	0.0000	71.1886	71.1886	4.8100e-003	0.0000	71.3088
Worker	0.0564	0.0360	0.3818	1.3100e-003	0.1524	1.0200e-003	0.1534	0.0405	9.3000e-004	0.0414	0.0000	118.5173	118.5173	2.9400e-003	0.0000	118.5907
Total	**0.0624**	**0.2493**	**0.4468**	**2.0400e-003**	**0.1713**	**1.2700e-003**	**0.1725**	**0.0459**	**1.1700e-003**	**0.0471**	**0.0000**	**189.7058**	**189.7058**	**7.7500e-003**	**0.0000**	**189.8995**

3.6 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	**0.1785**	**1.6273**	**2.0991**	**3.5200e-003**		**0.0689**	**0.0689**		**0.0648**	**0.0648**	**0.0000**	**302.6549**	**302.6549**	**0.0711**	**0.0000**	**304.4335**

3.6 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0117	0.4157	0.1258	1.4200e-003	0.0373	4.8000e-004	0.0377	0.0108	4.6000e-004	0.0112	0.0000	139.9029	139.9029	9.4100e-003	0.0000	140.1382
Worker	0.1064	0.0656	0.7047	2.4900e-003	0.3014	1.9800e-003	0.3034	0.0801	1.8200e-003	0.0819	0.0000	224.8674	224.8674	5.3600e-003	0.0000	225.0014
Total	**0.1181**	**0.4813**	**0.8305**	**3.9100e-003**	**0.3386**	**2.4600e-003**	**0.3411**	**0.0908**	**2.2800e-003**	**0.0931**	**0.0000**	**364.7703**	**364.7703**	**0.0148**	**0.0000**	**365.1396**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0428	0.2916	2.2786	3.5200e-003		5.3200e-003	5.3200e-003		5.3200e-003	5.3200e-003	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	**0.0428**	**0.2916**	**2.2786**	**3.5200e-003**		**5.3200e-003**	**5.3200e-003**		**5.3200e-003**	**5.3200e-003**	**0.0000**	**302.6545**	**302.6545**	**0.0711**	**0.0000**	**304.4331**

3.6 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	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	0.0117	0.4157	0.1258	1.4200e-003	0.0373	4.8000e-004	0.0377	0.0108	4.6000e-004	0.0112	0.0000	139.9029	139.9029	9.4100e-003	0.0000	140.1382
Worker	0.1064	0.0656	0.7047	2.4900e-003	0.3014	1.9800e-003	0.3034	0.0801	1.8200e-003	0.0819	0.0000	224.8674	224.8674	5.3600e-003	0.0000	225.0014
Total	**0.1181**	**0.4813**	**0.8305**	**3.9100e-003**	**0.3386**	**2.4600e-003**	**0.3411**	**0.0908**	**2.2800e-003**	**0.0931**	**0.0000**	**364.7703**	**364.7703**	**0.0148**	**0.0000**	**365.1396**

3.6 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0321	0.2930	0.3780	6.3000e-004		0.0124	0.0124		0.0117	0.0117	0.0000	54.5011	54.5011	0.0128	0.0000	54.8214
Total	**0.0321**	**0.2930**	**0.3780**	**6.3000e-004**		**0.0124**	**0.0124**		**0.0117**	**0.0117**	**0.0000**	**54.5011**	**54.5011**	**0.0128**	**0.0000**	**54.8214**

3.6 Building Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0400e-003	0.0738	0.0223	2.5000e-004	6.7100e-003	8.0000e-005	6.7900e-003	1.9400e-003	8.0000e-005	2.0200e-003	0.0000	25.0490	25.0490	1.6800e-003	0.0000	25.0910
Worker	0.0184	0.0110	0.1193	4.3000e-004	0.0543	3.4000e-004	0.0546	0.0144	3.2000e-004	0.0147	0.0000	39.0104	39.0104	9.0000e-004	0.0000	39.0329
Total	**0.0204**	**0.0848**	**0.1416**	**6.8000e-004**	**0.0610**	**4.2000e-004**	**0.0614**	**0.0164**	**4.0000e-004**	**0.0168**	**0.0000**	**64.0594**	**64.0594**	**2.5800e-003**	**0.0000**	**64.1238**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.7000e-003	0.0525	0.4103	6.3000e-004		9.6000e-004	9.6000e-004		9.6000e-004	9.6000e-004	0.0000	54.5010	54.5010	0.0128	0.0000	54.8213
Total	**7.7000e-003**	**0.0525**	**0.4103**	**6.3000e-004**		**9.6000e-004**	**9.6000e-004**		**9.6000e-004**	**9.6000e-004**	**0.0000**	**54.5010**	**54.5010**	**0.0128**	**0.0000**	**54.8213**

3.6 Building Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0400e-003	0.0738	0.0223	2.5000e-004	6.7100e-003	8.0000e-005	6.7900e-003	1.9400e-003	8.0000e-005	2.0200e-003	0.0000	25.0490	25.0490	1.6800e-003	0.0000	25.0910
Worker	0.0184	0.0110	0.1193	4.3000e-004	0.0543	3.4000e-004	0.0546	0.0144	3.2000e-004	0.0147	0.0000	39.0104	39.0104	9.0000e-004	0.0000	39.0329
Total	**0.0204**	**0.0848**	**0.1416**	**6.8000e-004**	**0.0610**	**4.2000e-004**	**0.0614**	**0.0164**	**4.0000e-004**	**0.0168**	**0.0000**	**64.0594**	**64.0594**	**2.5800e-003**	**0.0000**	**64.1238**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0138	0.0217	4.0000e-005		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	3.0639	3.0639	1.7000e-004	0.0000	3.0681
Total	**0.8481**	**0.0138**	**0.0217**	**4.0000e-005**		**6.2000e-004**	**6.2000e-004**		**6.2000e-004**	**6.2000e-004**	**0.0000**	**3.0639**	**3.0639**	**1.7000e-004**	**0.0000**	**3.0681**

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9700e-003	1.2200e-003	0.0131	5.0000e-005	5.5800e-003	4.0000e-005	5.6200e-003	1.4800e-003	3.0000e-005	1.5200e-003	0.0000	4.1642	4.1642	1.0000e-004	0.0000	4.1667
Total	**1.9700e-003**	**1.2200e-003**	**0.0131**	**5.0000e-005**	**5.5800e-003**	**4.0000e-005**	**5.6200e-003**	**1.4800e-003**	**3.0000e-005**	**1.5200e-003**	**0.0000**	**4.1642**	**4.1642**	**1.0000e-004**	**0.0000**	**4.1667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.8461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	1.5500e-003	0.0220	4.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	3.0639	3.0639	1.7000e-004	0.0000	3.0681
Total	**0.8464**	**1.5500e-003**	**0.0220**	**4.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**3.0639**	**3.0639**	**1.7000e-004**	**0.0000**	**3.0681**

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9700e-003	1.2200e-003	0.0131	5.0000e-005	5.5800e-003	4.0000e-005	5.6200e-003	1.4800e-003	3.0000e-005	1.5200e-003	0.0000	4.1642	4.1642	1.0000e-004	0.0000	4.1667
Total	**1.9700e-003**	**1.2200e-003**	**0.0131**	**5.0000e-005**	**5.5800e-003**	**4.0000e-005**	**5.6200e-003**	**1.4800e-003**	**3.0000e-005**	**1.5200e-003**	**0.0000**	**4.1642**	**4.1642**	**1.0000e-004**	**0.0000**	**4.1667**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6569					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0200e-003	0.0269	0.0425	7.0000e-005		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	6.0002	6.0002	3.3000e-004	0.0000	6.0083
Total	**1.6609**	**0.0269**	**0.0425**	**7.0000e-005**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**6.0002**	**6.0002**	**3.3000e-004**	**0.0000**	**6.0083**

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-003	2.2100e-003	0.0240	9.0000e-005	0.0109	7.0000e-005	0.0110	2.9000e-003	6.0000e-005	2.9700e-003	0.0000	7.8563	7.8563	1.8000e-004	0.0000	7.8608
Total	**3.7000e-003**	**2.2100e-003**	**0.0240**	**9.0000e-005**	**0.0109**	**7.0000e-005**	**0.0110**	**2.9000e-003**	**6.0000e-005**	**2.9700e-003**	**0.0000**	**7.8563**	**7.8563**	**1.8000e-004**	**0.0000**	**7.8608**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6569					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.0000e-004	3.0300e-003	0.0431	7.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	6.0001	6.0001	3.3000e-004	0.0000	6.0083
Total	**1.6576**	**3.0300e-003**	**0.0431**	**7.0000e-005**		**9.0000e-005**	**9.0000e-005**		**9.0000e-005**	**9.0000e-005**	**0.0000**	**6.0001**	**6.0001**	**3.3000e-004**	**0.0000**	**6.0083**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-003	2.2100e-003	0.0240	9.0000e-005	0.0109	7.0000e-005	0.0110	2.9000e-003	6.0000e-005	2.9700e-003	0.0000	7.8563	7.8563	1.8000e-004	0.0000	7.8608
Total	**3.7000e-003**	**2.2100e-003**	**0.0240**	**9.0000e-005**	**0.0109**	**7.0000e-005**	**0.0110**	**2.9000e-003**	**6.0000e-005**	**2.9700e-003**	**0.0000**	**7.8563**	**7.8563**	**1.8000e-004**	**0.0000**	**7.8608**

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	0.6000	2.4077	6.0330	0.0213	2.0771	0.0171	2.0941	0.5561	0.0159	0.5719	0.0000	1,971.1108	1,971.1108	0.1032	0.0000	1,973.6907
Unmitigated	0.6000	2.4077	6.0330	0.0213	2.0771	0.0171	2.0941	0.5561	0.0159	0.5719	0.0000	1,971.1108	1,971.1108	0.1032	0.0000	1,973.6907

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,200.00	3,200.00	3200.00	5,513,435	5,513,435
Total	3,200.00	3,200.00	3,200.00	5,513,435	5,513,435

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
Condo/Townhouse	5.33	5.33	5.33	42.00	19.00	39.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.611343	0.038414	0.178161	0.100214	0.013382	0.005338	0.017151	0.024839	0.001931	0.001783	0.005765	0.000770	0.000908

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	324.4421	324.4421	0.0135	2.3800e-003	325.4885
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	372.7243	372.7243	0.0155	2.7300e-003	373.9264
NaturalGas Mitigated	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	307.0095	307.0095	5.8800e-003	5.6300e-003	308.8339
NaturalGas Unmitigated	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	307.0095	307.0095	5.8800e-003	5.6300e-003	308.8339

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					
Condo/Townhouse	5.75314e+006	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	307.0095	307.0095	5.8800e-003	5.6300e-003	308.8339
Total		**0.0310**	**0.2651**	**0.1128**	**1.6900e-003**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**307.0095**	**307.0095**	**5.8800e-003**	**5.6300e-003**	**308.8339**

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					
Condo/Townhouse	5.75314e+006	0.0310	0.2651	0.1128	1.6900e-003		0.0214	0.0214		0.0214	0.0214	0.0000	307.0095	307.0095	5.8800e-003	5.6300e-003	308.8339
Total		**0.0310**	**0.2651**	**0.1128**	**1.6900e-003**		**0.0214**	**0.0214**		**0.0214**	**0.0214**	**0.0000**	**307.0095**	**307.0095**	**5.8800e-003**	**5.6300e-003**	**308.8339**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	2.00933e+006	372.7243	0.0155	2.7300e-003	373.9264
Total		**372.7243**	**0.0155**	**2.7300e-003**	**373.9264**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.74905e+006	324.4421	0.0135	2.3800e-003	325.4885
Total		**324.4421**	**0.0135**	**2.3800e-003**	**325.4885**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9334	0.3062	3.0830	1.8900e-003		0.0385	0.0385		0.0385	0.0385	0.0000	319.9114	319.9114	0.0107	5.7800e-003	321.8998
Unmitigated	1.9334	0.3062	3.0830	1.8900e-003		0.0385	0.0385		0.0385	0.0385	0.0000	319.9114	319.9114	0.0107	5.7800e-003	321.8998

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	0.2503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0318	0.2721	0.1158	1.7400e-003		0.0220	0.0220		0.0220	0.0220	0.0000	315.0599	315.0599	6.0400e-003	5.7800e-003	316.9322
Landscaping	0.0891	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Total	**1.9334**	**0.3062**	**3.0830**	**1.9000e-003**		**0.0385**	**0.0385**		**0.0385**	**0.0385**	**0.0000**	**319.9114**	**319.9114**	**0.0107**	**5.7800e-003**	**321.8998**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2503					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.5622					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0318	0.2721	0.1158	1.7400e-003		0.0220	0.0220		0.0220	0.0220	0.0000	315.0599	315.0599	6.0400e-003	5.7800e-003	316.9322
Landscaping	0.0891	0.0342	2.9672	1.6000e-004		0.0165	0.0165		0.0165	0.0165	0.0000	4.8515	4.8515	4.6500e-003	0.0000	4.9677
Total	**1.9334**	**0.3062**	**3.0830**	**1.9000e-003**		**0.0385**	**0.0385**		**0.0385**	**0.0385**	**0.0000**	**319.9114**	**319.9114**	**0.0107**	**5.7800e-003**	**321.8998**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	98.3044	0.8530	0.0207	125.8007
Unmitigated	105.0764	0.8532	0.0208	132.5946

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	26.0616 / 16.4301	105.0764	0.8532	0.0208	132.5946
Total		**105.0764**	**0.8532**	**0.0208**	**132.5946**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	26.0616 / 13.1441	98.3044	0.8530	0.0207	125.8007
Total		**98.3044**	**0.8530**	**0.0207**	**125.8007**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	28.0128	1.6555	0.0000	69.4004
Unmitigated	37.3503	2.2073	0.0000	92.5339

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	184	37.3503	2.2073	0.0000	92.5339
Total		**37.3503**	**2.2073**	**0.0000**	**92.5339**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	138	28.0128	1.6555	0.0000	69.4004
Total		**28.0128**	**1.6555**	**0.0000**	**69.4004**

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

ATTACHMENT B

EMFAC 2014 (2026 - VMT per Trip Calculations)

EMFAC2014 (v1.0.7) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2026
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Population	VMT	Trips
San Diego	2026	HHDT	Aggregatec	Aggregatec	GAS	167.5957326	21749.52304	3353.255417
San Diego	2026	HHDT	Aggregatec	Aggregatec	DSL	15645.91165	2135078.651	0
San Diego	2026	LDA	Aggregatec	Aggregatec	GAS	1451654.062	47518288.54	9191060.676
San Diego	2026	LDA	Aggregatec	Aggregatec	DSL	18622.51166	616981.99	117205.7083
San Diego	2026	LDA	Aggregatec	Aggregatec	ELEC	121062.083	4949434.022	785628.5789
San Diego	2026	LDT1	Aggregatec	Aggregatec	GAS	110115.5939	3331644.121	666437.355
San Diego	2026	LDT1	Aggregatec	Aggregatec	DSL	124.8114255	2633.841787	613.970893
San Diego	2026	LDT1	Aggregatec	Aggregatec	ELEC	42.69926559	1352.096485	259.1206316
San Diego	2026	LDT2	Aggregatec	Aggregatec	GAS	452771.2683	15436548.86	2865498.527
San Diego	2026	LDT2	Aggregatec	Aggregatec	DSL	970.5635469	33713.91312	6177.316206
San Diego	2026	LHDT1	Aggregatec	Aggregatec	GAS	16314.81646	444554.2917	243066.4562
San Diego	2026	LHDT1	Aggregatec	Aggregatec	DSL	23051.92533	717478.8991	289964.2213
San Diego	2026	LHDT2	Aggregatec	Aggregatec	GAS	4046.175021	138815.0608	60281.97901
San Diego	2026	LHDT2	Aggregatec	Aggregatec	DSL	9116.703082	324679.087	114676.656
San Diego	2026	MCY	Aggregatec	Aggregatec	GAS	71325.57419	500602.409	142636.8833
San Diego	2026	MDV	Aggregatec	Aggregatec	GAS	268481.0435	8489901.386	1669638.038
San Diego	2026	MDV	Aggregatec	Aggregatec	DSL	6019.410703	211944.3776	38351.37966
San Diego	2026	MH	Aggregatec	Aggregatec	GAS	8321.649313	61737.13592	832.4977973
San Diego	2026	MH	Aggregatec	Aggregatec	DSL	2245.347186	17146.85063	224.5347186
San Diego	2026	MHDT	Aggregatec	Aggregatec	GAS	3171.174025	164145.6455	63448.8499
San Diego	2026	MHDT	Aggregatec	Aggregatec	DSL	26576.49204	1325120.363	0
San Diego	2026	OBUS	Aggregatec	Aggregatec	GAS	1755.939329	93481.56971	35132.8341
San Diego	2026	OBUS	Aggregatec	Aggregatec	DSL	980.0428572	74167.93587	0
San Diego	2026	SBUS	Aggregatec	Aggregatec	GAS	460.1745622	20767.56101	1840.698249
San Diego	2026	SBUS	Aggregatec	Aggregatec	DSL	1216.407802	46089.03739	0
San Diego	2026	UBUS	Aggregatec	Aggregatec	GAS	483.1218265	64703.68329	1932.487306
San Diego	2026	UBUS	Aggregatec	Aggregatec	DSL	673.1632845	90155.61205	2692.653138

	Total VMT	Total Trips
Total	86832916.46	16300954.68
VMT/Trip	5.326860799	

ATTACHMENT C

CalEEMod 2016.3.2 (General Plan Buildout Scenario)

Tierra Norte GP 1000000 sf light industrial

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	1,000.00	1000sqft	25.60	1,000,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2026
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	408.95	**CH4 Intensity (lb/MWhr)**	0.017	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - rps

Land Use - Site is 25.6 acres

Construction Phase - no construction assumed

Off-road Equipment - equipment not used

Trips and VMT - No transportation for construction assumed

Demolition -

Area Coating - rule 67 paint

Energy Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Vehicle Trips - Per EMFAC

Fleet Mix -

Tierra Norte GP 1000000 sf light industrial - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	100
tblAreaCoating	Area_EF_Nonresidential_Interior	250	100
tblConstructionPhase	NumDays	30.00	2.00
tblLandUse	LotAcreage	22.96	25.60
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.017
tblProjectCharacteristics	CO2IntensityFactor	720.49	408.95
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	WorkerTripNumber	3.00	0.00
tblVehicleTrips	CC_TL	7.30	5.33
tblVehicleTrips	CNW_TL	7.30	5.33
tblVehicleTrips	CW_TL	9.50	5.33

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					
2020	0.0000	0.0000	0.0000	0.0000	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					
2020	0.0000	0.0000	0.0000	0.0000	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**

Tierra Norte GP 1000000 sf light industrial - San Diego County, Annual

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	4.3698	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190
Energy	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	2,158.3624	2,158.3624	0.0759	0.0226	2,167.0000
Mobile	1.0030	4.0383	10.2698	0.0366	3.5901	0.0293	3.6193	0.9611	0.0272	0.9883	0.0000	3,390.7827	3,390.7827	0.1761	0.0000	3,395.1858
Waste						0.0000	0.0000		0.0000	0.0000	251.7088	0.0000	251.7088	14.8756	0.0000	623.5979
Water						0.0000	0.0000		0.0000	0.0000	73.3650	558.5500	631.9149	7.5585	0.1820	875.1200
Total	**5.4352**	**4.6051**	**10.7550**	**0.0400**	**3.5901**	**0.0724**	**3.6624**	**0.9611**	**0.0703**	**1.0314**	**325.0738**	**6,107.7129**	**6,432.7867**	**22.6861**	**0.2046**	**7,060.9227**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.3698	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190
Energy	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	1,817.1414	1,817.1414	0.0617	0.0201	1,824.6784
Mobile	1.0030	4.0383	10.2698	0.0366	3.5901	0.0293	3.6193	0.9611	0.0272	0.9883	0.0000	3,390.7827	3,390.7827	0.1761	0.0000	3,395.1858
Waste						0.0000	0.0000		0.0000	0.0000	188.7816	0.0000	188.7816	11.1567	0.0000	467.6984
Water						0.0000	0.0000		0.0000	0.0000	58.6920	446.8400	505.5319	6.0468	0.1456	700.0960
Total	**5.4352**	**4.6051**	**10.7550**	**0.0400**	**3.5901**	**0.0724**	**3.6624**	**0.9611**	**0.0703**	**1.0314**	**247.4736**	**5,654.7819**	**5,902.2555**	**17.4414**	**0.1657**	**6,387.6777**

	ROG	NOx	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**	**23.87**	**7.42**	**8.25**	**23.12**	**19.01**	**9.53**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	no construction assumed	Demolition	8/5/2020	8/6/2020	5	2	

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
no construction assumed	Rubber Tired Dozers	1	0.00	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
no construction assumed	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 no construction assumed - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
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**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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 no construction assumed - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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
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 Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1.0030	4.0383	10.2698	0.0366	3.5901	0.0293	3.6193	0.9611	0.0272	0.9883	0.0000	3,390.7827	3,390.7827	0.1761	0.0000	3,395.1858
Unmitigated	1.0030	4.0383	10.2698	0.0366	3.5901	0.0293	3.6193	0.9611	0.0272	0.9883	0.0000	3,390.7827	3,390.7827	0.1761	0.0000	3,395.1858

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	6,970.00	1,320.00	680.00	9,529,694	9,529,694
Total	6,970.00	1,320.00	680.00	9,529,694	9,529,694

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	5.33	5.33	5.33	59.00	28.00	13.00	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	0.611343	0.038414	0.178161	0.100214	0.013382	0.005338	0.017151	0.024839	0.001931	0.001783	0.005765	0.000770	0.000908

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	1,200.2558	1,200.2558	0.0499	8.8000e-003	1,204.1270
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,541.4767	1,541.4767	0.0641	0.0113	1,546.4485
NaturalGas Mitigated	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	616.8856	616.8856	0.0118	0.0113	620.5515
NaturalGas Unmitigated	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	616.8856	616.8856	0.0118	0.0113	620.5515

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	1.156e+007	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	616.8856	616.8856	0.0118	0.0113	620.5515
Total		**0.0623**	**0.5667**	**0.4760**	**3.4000e-003**		**0.0431**	**0.0431**		**0.0431**	**0.0431**	**0.0000**	**616.8856**	**616.8856**	**0.0118**	**0.0113**	**620.5515**

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	1.156e+007	0.0623	0.5667	0.4760	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	616.8856	616.8856	0.0118	0.0113	620.5515
Total		**0.0623**	**0.5667**	**0.4760**	**3.4000e-003**		**0.0431**	**0.0431**		**0.0431**	**0.0431**	**0.0000**	**616.8856**	**616.8856**	**0.0118**	**0.0113**	**620.5515**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	8.31e +006	1,541.4767	0.0641	0.0113	1,546.4485
Total		**1,541.4767**	**0.0641**	**0.0113**	**1,546.4485**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	6.4705e +006	1,200.2558	0.0499	8.8000e-003	1,204.1270
Total		**1,200.2558**	**0.0499**	**8.8000e-003**	**1,204.1270**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.3698	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190
Unmitigated	4.3698	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190

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	0.4635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.4000e-004	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190
Total	**4.3698**	**8.0000e-005**	**9.1700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0190**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4635					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.9055					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.4000e-004	8.0000e-005	9.1700e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0179	0.0179	5.0000e-005	0.0000	0.0190
Total	**4.3698**	**8.0000e-005**	**9.1700e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0179**	**0.0179**	**5.0000e-005**	**0.0000**	**0.0190**

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	505.5319	6.0468	0.1456	700.0960
Unmitigated	631.9149	7.5585	0.1820	875.1200

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	231.25 / 0	631.9149	7.5585	0.1820	875.1200
Total		**631.9149**	**7.5585**	**0.1820**	**875.1200**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	185 / 0	505.5319	6.0468	0.1456	700.0960
Total		**505.5319**	**6.0468**	**0.1456**	**700.0960**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	188.7816	11.1567	0.0000	467.6984
Unmitigated	251.7088	14.8756	0.0000	623.5979

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	1240	251.7088	14.8756	0.0000	623.5979
Total		**251.7088**	**14.8756**	**0.0000**	**623.5979**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	930	188.7816	11.1567	0.0000	467.6984
Total		**188.7816**	**11.1567**	**0.0000**	**467.6984**

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