GLOBAL CLIMATE CHANGE

Carefield Solana Assisted Care Facility Development
PDS2018-MPA-18-019
County of San Diego, CA

Lead Agency:

County of San Diego
Department of Planning and Land Use
5510 Overland Avenue #110
San Diego, CA 92123

Prepared By:

Jeremy Louden
Ldn Consulting, Inc.
42428 Chisolm Trail
Murrieta, CA 92562

Prepared For:

Carefield Senior Living
201 Lomas Santa Fe Drive #450
Solana Beach, CA 92075

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EXECUTIVE SUMMARY

This analysis 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). 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). This analysis has been completed in order to compare GHG emissions from both the proposed 74,000 square feet (SF), 80-bed assisted living facility with an assumed General Plan (GP) buildout scenario consisting of a 50,000 SF general office building.

The Project known as "Carefield Solana Assisted Living Development" envisions constructing a 74,000 SF, 80-bed assisted living and memory care facility with an outdoor recreational area. The Project would be located in north San Diego County, in the unincorporated community of Bonsall.

All construction phases of the proposed Project are anticipated to start in 2020 and completion is expected in 2021 with full operations expected in 2022. As an air quality (AQ) mitigation measure, the Project will utilize the following:

- Project-related construction activities would use Tier 4 construction equipment with United States (U.S.) Environmental Protection Agency (EPA)/ California Air Resources Board (CARB)-certified construction equipment with Diesel Particulate Filters (DPFs). The Project developer has confirmed commitment to this feature.

Project design features (PDFs) have been included in this Project and have been agreed to implement by the applicant. All PDFs would be included in the Project's Conditions of Approval. The following PDFs applied in this analysis with the purpose of reducing GHG emissions include:

- The Project will utilize architectural coatings compliant with San Diego Air Pollution Control District (SDAPCD) Rule 67 (SDAPCD, 2015).
- Install high-efficiency light emitting diode (LED) street and area lighting to achieve reduction in overall lighting energy.
- In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal by providing areas for storage and collection of recyclables and provide literature promoting recycling to achieve additional waste diversion.
- The Project applicant will be required to comply with County's Water Conservation in Landscaping Ordinance and demonstrates a 40 percent reduction in outdoor use and will submit a Landscape Document Package to show such compliance.

- Install low flow indoor water fixtures in all residential units to achieve at lease a 20 percent reduction in indoor water use.

The proposed Project will emit GHGs directly through operations and construction and indirectly from offsite sources such as water conveyance and utilities. With all mentioned PDFs applied, the proposed Project would generate approximately 535 Metric Tons (MT) of CO_2e each year starting in 2022.

The General Plan would allow for the construction of at least a 50,000 SF general office building and would generate 704 MT CO_2e per year starting the same operational year, 2022, as the proposed Project. This potential version of the Project is referred to as the General Plan (GP) buildout scenario. The GP buildout would include all PDFs above. Comparing operational emissions from both the proposed Project and the GP buildout for the site, the proposed Project operations would generate 169 MT CO_2e (704 MT CO_2e – 535 MT CO_2e) fewer emissions than the GP buildout assumption. Since the proposed Project would generate fewer emissions that the GP buildout allows, the Project would generate less than significant GHG impacts.

1.0 INTRODUCTION

1.1 Purpose of this Study

The purpose of this greenhouse gas (GHG) assessment is to provide documentation in support of the Project's conformance with the County of San Diego's (County's) Climate Action Plan (CAP) Checklist which is the County's response for compliance with California Global Warming Solutions Act of 2006 – Assembly Bill (AB) 32 and Senate Bill (SB) 97. At the time of preparing this analysis, the County's CAP represents the currently adopted and applicable plan for the purposes of the California Environmental Quality Act (CEQA). AB 32 requires that by 2020 the state's GHG emissions be reduced to 1990 levels and SB 97 a "companion" bill directed amendments to the CEQA statute to specifically establish that GHG emissions and their impacts are appropriate subjects for CEQA analysis.

1.2 Project Location

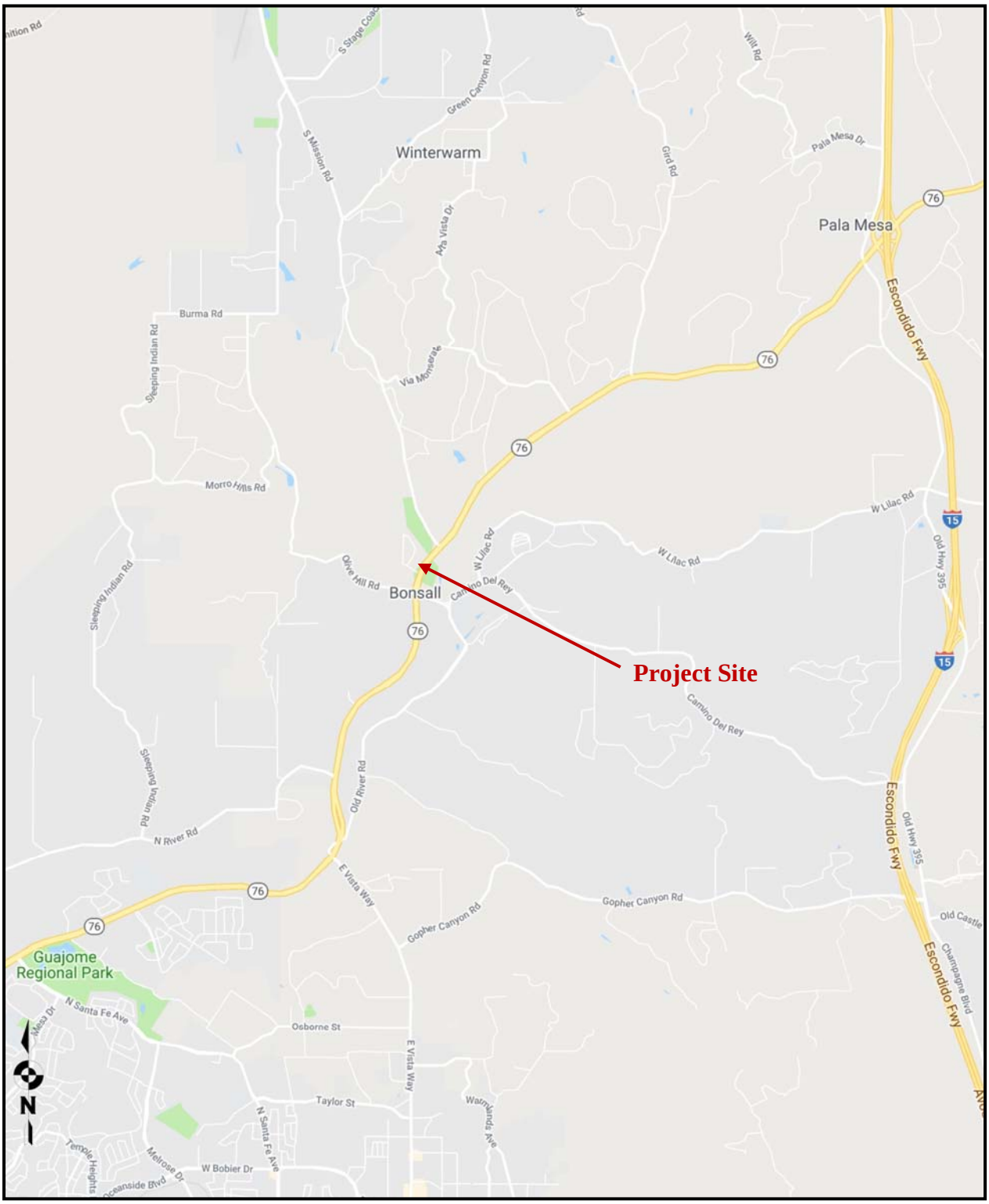
The proposed Carefield Solana Assisted Living Project is located in north San Diego County, in the unincorporated community of Bonsall. The Project is located at 33° 17' 30" N and 117° 13' 31" W, northwest of State Route 76 along Thoroughbred Lane. The general location of the Project is shown on the Vicinity Map, Figure 1-A.

1.3 Project Description

The proposed Project seeks to construct a 74,000 Square Foot (SF), 80-bed assisted living and memory care facility with an outdoor recreational area. The existing County of San Diego General Plan land use designation for the Project is C30 (Office Professional) and proposes to rezone the site to C-46 (Medical Center). The Project site plan is shown in Figure 1-B.

Construction of the Project would be expected to begin in 2020 with completion expected in 2021. The first full year of operations is expected in 2020.

Figure 1-A: Project Vicinity Map



Source: (Google, 2019)

Figure 1-B: Proposed Project Site Layout

Source: (Jones Ballard Architects, 2018)

1.4 Project Design Features

PDFs are included to reduce environmental impacts and can be specific to non GHG efficiencies. For purposes of this GHG analysis, only GHG specific design measures have been included per discussions with the Project applicant. Therefore, not all Project related design features are discussed within this analysis. This report will define specifically which design features were included within GHG estimation software and it should be expected that whenever a design feature is included within GHG emissions modeling that those particular design features would be required for the Project to implement as a part of the Project's conditions of approval. Project design features directly effecting greenhouse gas emissions and included in modeling include:

- The Project will utilize architectural coatings compliant with San Diego Air Pollution Control District (SDAPCD) Rule 67 (SDAPCD, 2015).
- Install high-efficiency light-emitting diode (LED) street and area lighting to achieve reduction in overall lighting energy.
- In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with both AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal. The Project will provide areas for storage and collection of recyclables and provide literature promoting recycling to achieve additional waste diversion, consistent with AB 341.
- The Project applicant will be required to comply with County's Water Conservation in Landscaping Ordinance and demonstrates a 40 percent reduction in outdoor use and will submit a Landscape Document Package to show such compliance.
- Install low flow indoor water fixtures in all residential units and will have a 20 percent reduction of water.

The Project will also include design features that could result in additional operational GHG emissions reductions that are not quantified within this report. Since modeling results would not be dependent on installation of these design features, they were not incorporated in this analysis. These design features are discussed in detail below and the implementation of these features would be required as Conditions of Approval from the County.

- Landscaped and screened parking areas consistent with the County's Parking Design Manual, including Section 7 (Landscaping) and the "cool parking" mitigation requirements identified by the CARB.
- Building efficiency features such as High-Efficiency HVAC system, sealed (tight) air ducts that minimize heating and cooling HVAC losses, tankless water heaters and Low E dual pane windows.
- Work with the regional or local water agency to determine if incentives/rebates are available for the purchase and installation of rain barrels.

- Install weather-based irrigation systems which include rain sensing timers.
- The Project will also plant shrubs and trees

Finally, the Project AQ report calls for a mitigation measure to utilize Tier 4 construction equipment with DPF U.S. EPA/ CARB-certified construction equipment. This mitigation measure will also be applied to all GHG modeling.

2.0 EXISTING ENVIRONMENTAL SETTING

2.1 Understanding GHGs

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 CH4 and N2O (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 Climate

Climate within the San Diego Air Basin (SDAB) area often varies dramatically over short geographical distances with cooler temperatures on the western coast gradually warming to the east as prevailing winds from the west heat up. Most of southern California is dominated by high-pressure systems for much of the year, which keeps San Diego 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. It is common for inversion layers to develop within high-pressure areas, which mostly define pressure patterns over the SDAB. These inversions are caused when a thin layer of the atmosphere increases in temperature with height. An inversion acts like a lid preventing vertical mixing of air through convective overturning.

Meteorological trends within the Bonsall area generally show daytime highs ranging between 67ºF in the winter to approximately 83ºF in the summer with August usually being the hottest month. Daytime Low temperatures range from approximately 44ºF in the winter to approximately 62ºF in the summer. Precipitation is generally about 13 inches per year (WRCC, 2016). Prevailing wind patterns for the area vary during any given month during the year and also vary depending on the time of day or night. The predominant pattern though throughout the year is usually from the west or westerly (WRCC, 2018).

2.3 Existing Setting

The existing site is zoned C30 (Office Professional). Land uses surrounding the Project mostly include single family residential which are adjacent to the Project site and multi-family residential roughly 145 feet to the south and nearly 900 feet to the north. Finally, Bonsall Elementary School is over 2,000 feet to the southeast. Elevations at the southwestern boundary is approximately 175 feet above mean sea level (MSL) to approximately 210 feet above MSL on the northeast are of the Project.

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

Executive Order (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 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 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 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 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 EO 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

[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.

trajectory toward meeting or exceeding the long-term goal of reducing statewide GHG 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 percent to 36.4 percent, 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 percent and 15 percent less electricity under the 2016 standards, respectively. Similarly, implementation of the 2016 standards is expected to reduce natural gas consumption by 21 percent in single-family homes and 31 percent in multi-family homes. Newly constructed non-residential buildings are estimated to achieve a 5 percent 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, 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 version of Title 24 which will continue to improve upon the 2016 Standards for residential and nonresidential buildings. One of the most notable changes is the requirement for the installation of rooftop solar on all residential buildings (California Energy Commission, 2017). The 2019 Standards will go into effect on January 1, 2020. 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 EV 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.

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 the state board 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, 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.

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, 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 the San Diego Association of Governments (SANDAG) are a 7 percent reduction in emissions per capita by 2020 and a 13 percent reduction by 2035. SANDAG completed and adopted its *2050 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS) in October 2011. In November 2011, 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.

After SANDAG's 2050 RTP/SCS was adopted, a lawsuit was filed by the Cleveland National Forest Foundation and others. The matter was recently resolved by the California Supreme Court (Case No. S223603), which held that SANDAG did not abuse its discretion when certifying its EIR by declining to explicitly engage in an analysis of the consistency of the

RTP/SCS' projected 2050 GHG emissions with the GHG reduction goals reflected in EO S-3-05.

In 2015, SANDAG adopted the next iteration of its RTP/SCS in accordance with statutorily mandated timelines and no subsequent litigation challenge was filed. More specifically, in October 2015, SANDAG adopted *San Diego Forward: The Regional Plan*. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG, 2015). 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.

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.

EO B-48-18

In January 2018, Governor Brown signed Executive Order B-48-18, setting ambitious targets of 200 hydrogen fueling stations and 250,000 electric vehicle chargers to support 1.5 million

zero-emission vehicles (ZEVs) on California roads by 2025 and 5 million ZEVs by 2030. The initiative is designed to focus multi-stakeholder efforts on deploying charging and fueling infrastructure as well as making ZEVs increasingly affordable to own and operate (Office of Governor Edmund G. Brown Jr., 2018).

AB 1236

AB 1236 (2015), as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified. In August 2016, the County Board of Supervisors adopted Ordinance No. 10437 adding a section to its County Code related to the expedited processing of electric vehicle charging stations permits consistent with AB 1236.

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).

<u>Renewable Energy Procurement</u>

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 Local Regulations

County of San Diego General Plan

The County's General Plan Update (approved in 2011) provides smart growth and land use planning principles designed to reduce GHG emissions. GHG reduction policies are addressed within multiple elements of the General Plan Update. The strategies for reduction of GHG emissions in the General Plan Update are to reduce vehicle miles traveled (VMT), energy consumption, water consumption and solid waste. The General Plan Update also discusses

the increased generation and use of renewable energy sources to reduce non-renewable electrical and natural gas energy consumption.

County of San Diego Climate Action Plan (CAP)

The County's CAP is a long-term plan that identifies strategies and measures to meet the County's targets to reduce GHG emissions by 2020 and 2030, consistent with the State's legislative GHG reduction targets, and demonstrates progress towards the State's 2050 GHG reduction goal (County of San Diego, 2017). At the time of preparing this greenhouse gas analysis, the County's CAP represents the currently adopted and applicable plan for CEQA purposes. Though not required to show consistency with the CAP, further analysis was provided within this report to demonstrate the Project's emissions compared to what would be generated by the maximum buildout of the site assumed under the General Plan.

In February 2018, the County's Board of Supervisors adopted a CAP that serves as a long-term programmatic plan that identifies strategies and measures to meet the County's targets to reduce GHG emissions by 2020 and 2030, consistent with the State's legislative GHG reduction targets, and demonstrates progress towards the State's 2050 GHG reduction goal. The Board's adoption of the CAP is the culmination of a multi-year plan development process that followed from the judicial invalidation (see Sierra Club v. County of San Diego (Case No. D064243)) of the County's prior CAP, which was adopted in 2012. In February 2018, the Board also amended General Plan Goal COS-20 and Policy COS-20.1 – both originally adopted as part of the 2011 General Plan Update – to reflect recent changes in State law. (See the County's Final Supplement to the 2011 General Plan Update Program EIR (SCH No. 2016101055), pages 1-13 through 1-16.) When certifying the Environmental Impact Report (EIR) for the CAP last year, the Board also adopted mitigation measure M-GHG-1, establishing a protocol through which GPA projects may meet a portion of their GHG reduction obligation by purchasing offsets, including offsets that are generated by GHG reduction activities located outside of the County.

In March 2018, several petitioners filed a lawsuit against the County, alleging that the CAP and, in particular, M-GHG-1 were inconsistent with General Plan Goal COS-20 and Policy COS-20.1, which in December 2018, the trial court issued a writ ordering the approval of the CAP and its EIR to be set aside. In January 2019, the County appealed the San Diego Superior Court ruling, which stayed the trial court's ruling.

3.4 Project Specific Guidelines

The following discussion provides a generally applicable overview of the pertinent parameters of the CEQA Guidelines amendments that address GHG emissions.

Appendix G of the CEQA Guidelines

Appendix G of the CEQA Guidelines was revised December 28, 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), as described above.

County of San Diego General Plan

A project's adherence to the County'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 impacts. Further consistency with the General Plan can be demonstrated through compliance with applicable General Plan policies. See Table 5.4 for the project's consistency with applicable General Plan strategies, goals, and policies.

County of San Diego Climate Action Plan (CAP)

Per County guidelines, the thresholds of significance for climate change are:

"A proposed project would have a less than significant cumulatively considerable contribution to climate change impacts if it is found to be consistent with the County's Climate Action Plan; and, would normally have a cumulatively considerable contribution to climate change impacts if it is found to be inconsistent with the County's Climate Action Plan." Consistency with the CAP is determined through the CAP Consistency Review Checklist (Checklist) and provides a streamlined CEQA review process for proposed discretionary development projects. The Checklist is the mechanism that is used to demonstrate consistency with the CAP. If a project does not comply with required actions in the Checklist, it would be determined to be inconsistent with the CAP.

If a project is consistent with the projections in the CAP, its associated growth in terms of GHG emissions was accounted for in the CAP's projections and would not increase emissions beyond what is anticipated in the CAP or inhibit the County from reaching its reduction targets. If a land use and/or zoning designation amendment results in a more GHG-intensive project, the project is required to demonstrate consistency with applicable CAP measures and offset the increase in emissions.

Although the CAP and its EIR remain applicable while the County appeals the trial court's decision, the CEQA analysis prepared for the proposed Project does not solely rely on the CAP but also provides environmental analysis under CEQA Guidelines Section 15183.5. This analysis also used the criteria contained in CEQA Guidelines Appendix G, (informed by CEQA Guidelines Section 15064.4) and mitigation strategies (informed by CEQA Guidelines Section 15126.4(c)) which are independent of the CAP.[3]

As explained in the CAP, the Checklist is the mechanism that is used to demonstrate consistency with the CAP. If a project does not comply with required actions in the Checklist, it would be determined to be inconsistent with the CAP. Also, per the County's CAP all projects are required to complete a CAP Checklist. It should be noted that regardless of the status of legal proceedings associated with the CAP, the Project has completed the CAP Consistency Review Checklist which is provided as ***Attachment A*** to this analysis. If a project is consistent with the projections in the CAP, its associated growth in terms of GHG emissions was accounted for in the CAP's projections and would not increase emissions beyond what is anticipated in the CAP or inhibit the County from achieving its reduction targets. If a project is consistent with the projections in the CAP, its GHG emissions would not conflict with an applicable plan adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, the Project would be in compliance with Appendix G of the CEQA Guidelines and would result in a less than significant impact.

[3] Individual projects may be approved using thresholds developed on a project-by-project basis. While lead agencies can adopt a significance threshold for general use pursuant to CEQA Guidelines§ 15064.7, they can alternately determine a threshold on a project-by project basis, which is specifically allowed pursuant to CEQA Guidelines § 15064.4(a), case law and several other expert sources. Under the CEQA Guidelines, lead agencies have the discretion to determine the appropriate method for evaluating GHG emissions, based to the extent possible on scientific and factual data.

4.0 METHODOLOGY

4.1 Construction CO_2e Emissions Calculation Methodology

The Project construction dates were estimated based on a construction kickoff in 2020 with construction completed in 2021. CalEEMod Version 2016.3.2 was utilized for all construction calculations and has been manually updated to reflect SDAPCD Rule 67 paint Volatile Organic Compound (VOC) limits. Table 4.1 shows the expected timeframes for the construction processes for all the proposed Project infrastructure, facilities, improvements and structures at the site, as well as the expected number of pieces of equipment have been verified by the applicants Project Engineer.

Table 4.1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	04/01/2020	04/07/2020	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	04/08/2020	04/17/2020	
Excavators			1
Graders			1
Rubber Tired Dozers			1
Tractors/Loaders/Backhoes			3
Building Construction	04/18/2020	03/05/2021	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Paving	03/06/2021	03/31/2021	
Pavers			1
Paving Equipment			2
Rollers			2
Architectural Coating	04/01/2021	04/26/2021	
Air Compressors			1
This equipment and durations were selected based on Project applicant inputs.			

This analysis includes a comparison between what is allowed under the General Plan (GP) buildout (C30) with a Floor Area Ration (FAR) of 0.25 which would accommodate at least a 50,000 SF office building on the 4.6 acre lot and the proposed Project which seeks to construct a 74,000 SF, 80 bed assisted living facility which has a FAR of 0.37 for the 4.6 acre Project site. For purposes of this comparative analysis, the GP buildout construction emissions are

assumed using default settings. The impacts of this General Plan Amendment (GPA), which is the basis of this report with respect to both construction and operations will be discussed further in Section 5 of this analysis.

4.2 Operational Emissions Calculation Methodology

Operational GHG sources for the Project would include: area sources such as landscaping, architectural coatings during maintenance, and hearth operations; energy sources from natural gas and electrical usage; mobile sources from vehicular traffic including trucks and passenger vehicles; solid waste from trash generation and decomposition at landfills; and emissions generated through the conveyance and treatment of water. PDFs as defined in Section 1.4 have been included within the analysis and would reduce GHG emissions of the Project.

GHG emissions for mobile, energy, water, area, and solid waste source emissions were estimated based on default CalEEMod inputs with the exception of mobile. Based on the projected traffic volumes by the Project traffic engineer, the Project would generate as much as 238 Average Daily Trips (ADT) as identified within the Project traffic study (Darnell and Associates, 2019).

The GP buildout would consist of a 50,000 SF general office building on the 4.6 acre lot. The Project traffic engineer did not estimate traffic for the GP buildout scenario. For this scenario, CalEEMod defaults were assumed. The GP buildout was assumed to have the same operational year as the proposed Project (2022) and was assumed to include all Project design features assumed within the proposed Project.

Electrical energy intensity factors were updated within CalEEMod to reflect San Diego Gas and Electric's (SDG&E) emissions rate variations for the 2022 operational year. In 2022, SDG&E will supply up to 36.4 percent of its electricity from renewable sources due to SB 350 requirements. Energy intensity emissions factors for SDG&E were updated in CalEEMod for both the GP buildout scenario and Project scenario to reflect the 2022 operational year.

Since the Project will start construction stating in 2020, the Project would be required to utilize Title 24 2019 standards. Because CalEEMod uses Title 26 2016 standards, which are less stringent than 2019 standards, 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. Calculations on estimated lighting energy reductions are shown in **Attachment C** and assume a conservative 65 percent reduction. The CalEEMod outputs for the proposed Project and the assumed GP scenario are shown in **Attachments D** and **E** of this report.

5.0 FINDINGS

5.1 Potential to Generate Significant GHG Emissions

Based on Appendix G of the CEQA Guidelines, the proposed Project would have a significant impact if it would:

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

5.2 Construction Emissions

Proposed Project Emissions

Utilizing the CalEEMod construction inputs for the model as shown in Table 4.1 above, we find that grading and construction of the Project will produce approximately 418 MT of CO_2e from construction. Based on South Coast Air Quality Management District (SCAQMD) methodology, it is recommended to average the construction emissions over the Project life which is assumed to be 30 years (SCAQMD, 2008). Using SCAQMD's methodology, the annual construction emission for the proposed Project is 14 MT of CO_2e per year and is shown in Table 5.1. It should be noted that construction emissions assume the use of Tier 4 diesel construction equipment fitted with DPF as this is a requirement for mitigation of AQ impacts discussed within the Project's AQ report as well as Rule 67 architectural coatings, though neither one of these measures reduce GHG emissions.

Table 5.1: Proposed Project Construction CO_2e Emissions Summary MT/Year

Year	CO_2e
2020	326
2021	92
Total	**418**
Yearly Average Construction Emissions (MT/year over 30 years)	**14**
Expected Construction emissions are based upon CalEEMod modeling for equipment listed in Table 4.1 above.	

5.3 Operational Emissions

Proposed Project Emissions

Once construction is completed the proposed Project would generate GHG emissions from daily operations which would include sources such as area, energy, mobile, solid waste and water uses, which were calculated using CalEEMod. The proposed Project would construct a 74,000 SF 80 bed assisted living facility and would be expected to fully operational in 2022. The proposed Project includes many PDFs however the only modeled PDFs are shown below:

1. Install high-efficiency LED street and area lighting to achieve reduction in overall lighting energy.
2. In accordance with the California Integrated Waste Management Act (AB 939), and to be consistent with both AB 341's statewide 75 percent diversion policy, the Project will seek to also achieve a 75 percent diversion goal. The Project will provide areas for storage and collection of recyclables and provide literature promoting recycling to achieve additional waste diversion, consistent with AB 341.
3. The Project applicant will be required to comply with County's Water Conservation in Landscaping Ordinance and demonstrates a 40 percent reduction in outdoor use and will submit a Landscape Document Package to show such compliance.
4. The Project would install low flow indoor water fixtures in all residential units and would achieve at least a 20 percent reduction.

Based on the CalEEMod analysis alone, the proposed Project buildout would generate 493 MT CO_2e annually which is shown in Table 5.2 below. These emissions include PDFs 1 through 4 shown above. The Project would generate 507 MT CO_2e annually when operational and amortized construction emissions are combined.

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

Source	CO_2e (MT/Yr)
Area	1
Energy	98
Mobile	343
Waste	28
Water	23
Total Operations	493
Construction	14
Project Total GHG Emissions	**507**
Calculations include PDFs 1-4	

General Plan Land Use Emissions

The GP buildout would allow for the construction of a 50,000 SF general office building. For purposes of analysis, the GP buildout has been analyzed using the same buildout year as the proposed Project and also was assumed to include PDFs 1-4, which could be required based on state and local regulations. Construction emissions for the GP buildout assumptions are based on defaults within CalEEMod and are provided in Table 5.4. If the Projects operations and construction emissions are lower than the GP buildout operations only emissions then by default, the Project would have lower emissions than the GP Buildout plus additional construction emissions.

Utilizing the CalEEMod defaults with respect to mobile, water, waste and area sources for General Plan buildout, we find that grading and construction of the Project will produce approximately 269 MT CO_2e from construction activities. Using SCAQMD's methodology, the annual construction emission for the General Plan buildout is 12 MT CO2e per year and is shown in Table 5.3.

Table 5.3: General Plan Construction CO_2e Emissions Summary MT/Year

Year	CO_2e
2020	269
2021	81
Total	**350**
Yearly Average Construction Emissions (MT/year over 30 years)	**12**
Expected Construction emissions are based upon CalEEMod modeling for equipment listed in Table 4.1 above.	

As shown in Table 5.4 below, the GP buildout would generate 707 MT CO_2e annually and the proposed Project would generate 507 MT of CO_2e annually or 200 MT CO_2e fewer GHG emissions annually than would be produced under a general plan buildout scenario. Given this, since the Project generates fewer emissions than would be otherwise assumed based on the GP buildout , the Project's GHG emissions would have equally been assumed to have been anticipated by the CAP. Given this, the Project would not increase emissions beyond what is anticipated in the General Plan or CAP or inhibit the County from reaching its reduction targets.

Table 5.4: General Plan Land Use Emissions Summary MT/Year

Source	CO_2e (MT/Yr)
Area	0
Energy	182
Mobile	455
Waste	18
Water	40
Total Operations	**695**
Construction	**12**
Total Operations (MT/Year)	**707**
Calculations included PDFs identified in 1-4	

Finally, the Project is required to complete the CAP Checklist and include all CAP Checklist items within the Project design which is provided as Attachment A to this report. Since the County's CAP was developed based on GP assumptions, Projects determined to be consistent with the County's CAP are also considered to be consistent with the GP.

5.4 Plan Consistency Evaluation

The Project was analyzed for consistency with the County of San Diego's General Plan which contains various goals, policies, and objectives related to the reduction of GHG emissions and global climate change. Based on our analysis, the Project would be consistent as shown in Table 5.5.

Table 5.5: County General Plan Policies

Policy	Project Consistency
COS14.3 Sustainable Development. Require design of residential subdivisions and nonresidential development through "green" and sustainable land development practices to conserve energy, water, open space, and natural resources.	*Consistent*. The Project would install low flow indoor fixtures.
COS14.7 Alternative Energy Sources for Development Projects. Encourage development projects that use energy recovery, photovoltaic, and wind energy.	*Consistent. The Project would plumb for solar and based on final design and roof configuration determine installation options.*
COS14.10 Low Emission Construction Vehicles and Equipment. Require County contractors and encourage other developers to use low-emission construction vehicles and equipment to improve air quality and reduce GHG emissions.	*Consistent*. The Project was found to require Tiered construction equipment to comply with County criterial pollutant thresholds or health risk standards at any nearby sensitive uses. The Project would utilize at least Tier 4 construction equipment to be consistent with COS14.10 Low Emission Construction Vehicles.
COS15.1 Design and Construction of New Buildings. Require that new buildings be designed and constructed in accordance with "green building" programs that incorporate techniques and materials that maximize energy efficiency, incorporate the use of sustainable resources and recycled materials, and reduce emissions of GHGs and toxic air contaminants.	*Consistent*. The Project proposes sustainability and efficiency features consistent with Title 24, Part 6 of the California Code of Regulations (2016) requirements.
COS15.4 Title 24 Energy Standards. Require development to minimize energy impacts from new buildings in accordance with or exceeding Title 24 energy standards.	*Consistent*. The Project proposes implementing energy efficiency features that would meet 2016 Title 24 standards.
COS17.1 Reduction of Solid Waste Materials. Reduce GHG emissions and future landfill capacity needs through reduction, reuse, or recycling of all types of solid waste that is generated. Divert solid waste from landfills in compliance with State law.	*Consistent*. Areas for storage and collection of recyclables and yard waste would be provided.
COS17.2 Construction and Demolition Waste. Require recycling, reduction and reuse of construction and demolition debris.	*Consistent*. The Project would prepare a Construction Debris Management Plan that complies with Section 68.508-68.518 of the County Municipal Code and would divert at least 90 percent of inerts and 70 percent of construction waste from landfills through reuse and recycling.

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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. The report was prepared by Jeremy Louden; a County approved CEQA Consultant for Air Quality and GHG.

Jeremy Louden, Principal
Ldn Consulting, Inc.
(760) 473-1253
jlouden@ldnconsulting.net

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ATTACHMENT A

County of San Diego CAP Checklist

Appendix A: Final Climate Action Plan Consistency Review Checklist

Introduction

The County of San Diego (County) Climate Action Plan (CAP), adopted by the Board of Supervisors on February 14, 2018, outlines actions that the County will undertake to meet its greenhouse gas (GHG) emissions reduction targets. Implementation of the CAP will require that new development projects incorporate more sustainable design standards and implement applicable reduction measures consistent with the CAP. To help plan and design projects consistent with the CAP, and to assist County staff in implementing the CAP and determining the consistency of proposed projects with the CAP during development review, the County has prepared a CAP Consistency Review Checklist (Checklist). This Checklist, in conjunction with the CAP, provides a streamlined review process for proposed discretionary projects that require environmental review pursuant to the California Environmental Quality Act (CEQA). Please refer to the County's Guidelines for Determining Significance for Climate Change (Guidelines) for more information on GHG emissions, climate change impact requirements, thresholds of significance, and compliance with CEQA Guidelines Section 15183.5.

The purpose of this Checklist is to implement GHG reduction measures from the CAP that apply to new development projects. The CAP presents the County's comprehensive strategy to reduce GHG emissions to meet its reduction targets. These reductions will be achieved through a combination of County initiatives and reduction actions for both existing and new development. Reduction actions that apply to existing and new development will be implemented through a combination of mandatory requirements and incentives. This Checklist specifically applies to proposed discretionary projects that require environmental review pursuant to CEQA. Therefore, the Checklist represents one implementation tool in the County's overall strategy to implement the CAP. Implementation of measures that do not apply to new development projects will occur through the implementation mechanisms identified in Chapter 5 of the CAP. Implementation of applicable reduction measures in new development projects will help the County achieve incremental reductions towards its targets, with additional reductions occurring through County initiatives and measures related to existing development that are implemented outside of the Checklist process.

The Checklist follows a two-step process to determine if projects are consistent with the CAP and whether they may have a significant cumulative impact under the County's adopted GHG thresholds of significance. The Checklist first assesses a project's consistency with the growth projections and land use assumptions that formed the basis of CAP emissions projections. If a project is consistent with the projections and land use assumptions in the CAP, its associated growth in terms of GHG emissions would have been accounted for in the CAP's projections and project implementation of the CAP reduction measures will contribute towards reducing the County's emissions and meeting the County's reduction targets. Projects that include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project

when compared to existing designation, would also be within the projections assumed in the CAP. Projects responding in the affirmative to Step 1 questions can move forward to Step 2 of the Checklist. If a land use and/or zoning designation amendment results in a more GHG-intensive project, the project is required to demonstrate consistency with applicable CAP measures and offset the increase in emissions as described in the Guidelines. Step 2 of the Checklist contains the CAP GHG reduction measures that projects are required to implement to ensure compliance with the CAP. Implementation of these measures would ensure that new development is consistent with relevant CAP strategies and measures and will contribute towards achieving the identified GHG reduction targets. Projects that are consistent with the CAP, as determined using this Checklist, may rely on the CAP for the cumulative impacts analysis of GHG emissions under CEQA.

A project's incremental contribution to cumulative GHG emissions may be determined to not be cumulatively considerable if it is determined to be consistent with the CAP. As specified in the CEQA Guidelines, the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the project's incremental effects are "cumulatively considerable" (CCR, Title 14, Division 6, Chapter 3, Section 15064[h][4]). Projects requiring discretionary review that cannot demonstrate consistency with the CAP using this Checklist may have a cumulatively considerable contribution to a significant cumulative impact and would be required to prepare a separate, more detailed project-level GHG analysis as part of the CEQA document prepared for the project.

Checklist Applicability

This Checklist only applies to development projects that require discretionary review and are subject to environmental review (i.e., not statutorily or categorically exempt projects) pursuant to CEQA. Projects that are limited to ministerial review and approval (e.g., only building permits) would not be subject to the Checklist. The CAP contains other measures that, when implemented, would apply broadly to all ministerial and discretionary projects. These measures are included for discretionary projects in this Checklist, but could also apply more broadly once the County takes action to codify specific requirements or standards.

Checklist Procedures

General procedures for Checklist compliance and review are described below. Specific guidance is also provided under each of the questions under Steps 1 and 2 of the Checklist in subsequent pages.

1. The County's Department of Planning & Development Services (PDS) reviews development applications and makes determinations regarding environmental review requirements under CEQA. Procedures for CEQA can be found on the County's Process Guidance & Regulations/Statutes Homepage. The Director of PDS will determine whether environmental review is required, and if so, whether completion of the CAP Checklist is required for a proposed project or whether a separate project-level GHG analysis is required.

2. The specific applicable requirements outlined in the Checklist shall be required as a condition of project approval.

3. The project must provide substantial evidence that demonstrates how the proposed project will implement each applicable Checklist requirement described herein to the satisfaction of the Director of PDS.

4. If a question in the Checklist is deemed not applicable (N/A) to a project, substantial evidence shall be provided to the satisfaction of the Director of PDS demonstrating why the Checklist item is not applicable. Feasibility of reduction measures for new projects was assessed in development of the

CAP and measures determined to be feasible were incorporated into the Checklist. Therefore, it is expected that projects would have the ability to comply with all applicable Checklist measures.

5. Development projects requiring discretionary review that cannot demonstrate consistency with the CAP using this Checklist shall prepare a separate, project-level GHG analysis as part of the CEQA document prepared for the project and may be required to prepare an Environmental Impact Report (EIR). Guidance for project-specific GHG Technical Reports is outlined in the Report Format and Content Requirements for Climate Change document, provided under separate cover. The Report Format and Content Requirements document provides guidance on the outline and content of GHG analyses for discretionary projects processed by PDS that cannot show compliance with the CAP Checklist.

Checklist Updates

The Guidelines and Checklist may be administratively updated by the County from time to time to comply with amendments to State laws or court directives, or to remove measures that may become mandatory through future updates to State or local codes. Administrative revisions to the Guidelines and Checklist will be limited to changes that do not trigger a subsequent EIR or a supplement to the SEIR for the CAP pursuant to CEQA Guidelines Section 15162. Administrative revisions, as described above, will not require approval by the Board of Supervisors (Board). All other changes to the Guidelines and Checklist require Board approval.

Comprehensive updates to the Guidelines and Checklist will be coordinated with each CAP update (i.e., every five years beginning in 2025) and would require Board approval. Future updates of the CAP, Guidelines, and Checklist shall comply with CEQA.

Application Information

Contact Information

Project No. and Name: Carefield Solana Assisted Care Facility (PDS2018-MPA-18-019)

Property Address and APN: 126-230-55-00 Thorough Lane Bonsall, CA 92003

Applicant Name and Co.: Gary Elam, Carefield Living

Contact Phone: 619-806-8610 Contact Email: gelam@carefieldliving.com

Was a consultant retained to complete this checklist? ■ Yes ☐ No

If Yes, complete the following:

Consultant Name: Jeremy Louden Contact Phone: (760) 473-1253

Company Name: LDN Consulting Contact Email: jlouden@ldnconsulting.com

Project Information

1. What is the size of the project site (acres [gross and net])? 4.6 acres gross, 4.51 net

2. Identify all applicable proposed land uses (indicate square footage [gross and net]):

   ☐ Residential (indicate # of single-family dwelling units):

   ■ Residential (indicate # of multi-family dwelling units): 80 unit assisted care

   ☐ Commercial (indicate total square footage [gross and net]):

   ☐ Industrial (indicate total square footage [gross and net]):

   ☐ Agricultural (indicate total acreage [gross and net]):

   ☐ Other (describe):

3. Provide a description of the project proposed. This description should match the project description used for the CEQA document. The description may be attached to the Checklist if there are space constraints.

Please refer to Section 1 of the Global Climate Change report (Ldn Consulting, 2019). The existing County of San Diego General Plan land use designation for the project is C30 (Office Professional) and seeks to rezone the site to C-46 (Medical Center) to allow the proposed use under the General Plan land use designation. The project includes primarily living units that will not be explicitly classified as "dwelling units" under County zoning requirements. The project would not be classified as a commercial use as the primary purpose of the uses is to provide residences for seniors. For purposes of this CAP Checklist, the project the project is more comparable to a multi-family residential project than to a nonresidential project such as a commercial development.

CAP Consistency Checklist Questions

Step 1: Land Use Consistency

For projects that are subject to CAP consistency review, the first step in determining consistency is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the County to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
1. Is the proposed project consistent with the existing General Plan regional category, land use designations, and zoning designations? If **"Yes,"** provide substantiation below and then proceed to Step 2 (CAP Measures Consistency) of the Checklist. If **"No,"** proceed to question 2 below.	☒	☐
Project Detail: Please substantiate how the project satisfies question 1. The site has a General Plan Designation of Rural Commercial within a C30 zone. Based on the C-30 designation, developing the 4.6-acre site could net approximately 50,000 square feet of commercial space or more. The proposed project is consistent with the zoning and General Plan designation. The proposed project is approximately 74,000 square feet assisted living facility which is less intensive per the findings in the Global Climate Change report.		
2. Does the project include a land use element and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations? If **"Yes,"** the project must provide estimated project GHG emissions under both existing and proposed designation(s) for comparison to substantiate the response and proceed to Step 2 (CAP Measures Consistency) of the Checklist. If **"No,"** (i.e., the project proposes an increase in density or intensity above that which is allowed under existing General Plan designations and consequently would not result in an equivalent or less GHG-intensive project when compared to the existing designations), the project must prepare a separate, more detailed project-level GHG analysis. As outlined in the County's Guidelines for Determining Significance for Climate Change and Report Format and Content Requirements for Climate Change, this analysis must demonstrate how the project would offset the increase in GHG emissions over the existing designations or baseline conditions. The project must also incorporate each of the CAP measures identified in Step 2 to mitigate cumulative GHG emissions impacts. Proceed and complete a separate project-specific GHG analysis and Step 2 of the Checklist. Refer to Section 4 of the County's Guidelines for procedures on analyzing General Plan Amendments.	☐	☐
Project Detail: Please substantiate how the project satisfies question 2.		

Step 2: CAP Measures Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable measures of the CAP. Each checklist item is associated with a specific GHG reduction measure(s) in the County CAP.

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
Step 2A: Project Operations (All projects with an operational component must fill out this portion of the Checklist)				
Reducing Vehicle Miles Traveled				
1a. Reducing Vehicle Miles Traveled <u>Non-Residential:</u> For non-residential projects with anticipated tenant-occupants of 25 or more, will the project achieve a 15% reduction in emissions from commute vehicle miles traveled (VMT), and commit to monitoring and reporting results to demonstrate on-going compliance? VMT reduction may be achieved through a combination of Transportation Demand Management (TDM) and parking strategies, as long as the 15% reduction can be substantiated. VMT reduction actions though TDM may include, but are not limited to: ☐ Telecommuting ☐ Car Sharing ☐ Shuttle Service ☐ Carpools ☐ Vanpools ☐ Bicycle Parking Facilities ☐ Transit Subsidies Shared and reduced parking strategies may include, but are not limited to:[1] ☐ Shared parking facilities ☐ Carpool/vanpool-only parking spaces ☐ Shuttle facilities ☐ Electric Vehicle-only parking spaces The project may incorporate the measures listed above, and propose additional trip reduction measures, as long as a 15% reduction in emissions from commute VMT can be demonstrated through substantial evidence. Check "N/A" if the project is a residential project or if the project would not accommodate more than 25 tenant-occupants.	T-2.2 and T-2.4	☐	☐	☒

1b. Project Detail:
Please substantiate how the project satisfies question 1a.
This measure for non-residential projects is not-applicable as the Project principally proposes to establish a residential community.

[1] Reduction actions and strategies under 1a may be used to achieve a 10% reduction in emissions from commute VMT under 2a

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
Shared and Reduced Parking				
2a. Shared and Reduced Parking Non-Residential: For non-residential projects with anticipated tenant-occupants of 24 or less, will the project implement shared and reduced parking strategies that achieves a 10% reduction in emissions from commute VMT? Shared and reduced parking strategies may include, but are not limited to: ☐ Shared parking facilities ☐ Carpool/vanpool-only parking spaces ☐ Shuttle facilities ☐ Electric Vehicle-only parking spaces Check "N/A" if the project is a residential project or if the project would accommodate 25 or more tenant-occupants.	T-2.4	☐	☐	☒

2b. Project Detail:
Please substantiate how the project satisfies question 2a.
The project is residential. Therefore, this measure does not apply.

Water Heating Systems				
3a. Electric or Alternatively-Fueled Water Heating Systems Residential: For projects that include residential construction, will the project, as a condition of approval, install the following types of electric or alternatively-fueled water heating system(s)? Please check which types of system(s) will be installed: ☐ Solar thermal water heater ■ Tankless electric water heater ☐ Storage electric water heaters ■ Electric heat pump water heater ■ Tankless gas water heater ☐ Other Check "N/A" if the project does not contain any residential buildings.	E-1.2	☒	☐	☐

3b. Project Detail:
Please substantiate how the project satisfies question 3a.
Each of the Project's residences will be equipped with tankless electric or gas water heaters or electric heat pumps as a condition of approval for the project.

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
Water-Efficient Appliances and Plumbing Fixtures				
4a. Water Efficient Appliances and Plumbing Fixtures Residential: For new residential projects, will the project comply with all of the following water efficiency and conservation BMPs[2]? ■ Kitchen Faucets: The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi[3]. ■ Energy Efficient Appliances: Install at least one qualified ENERGY STAR dishwasher or clothes washer per unit. Check "N/A" if the project is a non-residential project.	W-1.1	☒	☐	☐

4b. Project Detail:
Please substantiate how the project satisfies question 4a.

As a conditional of approval, the Project's residences will be equipped with water efficient appliances and plumbing fixtures. More specifically, EnergyStar or equivalent appliances are required, as well as low-flow bathroom faucets, kitchen faucets, toilets and showers per the applicable version of the CALGreen Code (Cal. Code Regs., Title 24, Part 11). Confirmation of such installation shall be verified at building plan check and compliance with this measure shall be made a condition of the Project's approvals.

Rain Barrel Installations				
5a. Rain Barrel Installations Residential: For new residential projects, will the project make use of incentives to install one rain barrel per every 500 square feet of available roof area? Check "N/A" if the project is a non-residential project; if State, regional or local incentives/rebates to purchase rain barrels are not available; or if funding for programs/rebates has been exhausted.	W-2.1	☒	☐	☐

5b. Project Detail:
Please substantiate how the project satisfies question 5a.

The project will determine if applicable incentives/rebates are available and will install if feasible.

[2] CALGreen Tier 1 residential voluntary measure A4.303 of the California Green Building Standards Code.
[3] Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
Reduce Outdoor Water Use				
6a. Reduce Outdoor Water Use Residential: Will the project submit a Landscape Document Package that is compliant with the County's Water Conservation in Landscaping Ordinance[4] and demonstrates a 40% reduction in current Maximum Applied Water Allowance (MAWA) for outdoor use? Non-Residential: Will the project submit a Landscape Document Package that is compliant with the County's Water Conservation in Landscaping Ordinance and demonstrates a 40% reduction in current MAWA for outdoor use? Check "N/A" if the project does not propose any landscaping, or if the aggregate landscaped area is between 500 – 2,499 square feet and elects to comply with the Prescriptive Compliance Option within the Water Conservation in Landscaping Ordinance.	W-1.2	☒	☐	☐
6b. Project Detail: Please substantiate how the project satisfies question 6a. The Project will submit a Landscape Document Package that complies with the referenced County Ordinance and demonstrates a 40 percent reduction in outdoor use. The Landscape Document Package shall be submitted to the County for review and approval prior to issuance of any building permits and compliance with this measure shall be made a condition of the Project's approval.				
Agricultural and Farming Operations[5]				
7a. Agricultural and Farming Equipment Will the project use the San Diego County Air Pollution Control District's (SDAPCD's) farm equipment incentive program to convert gas- and diesel-powered farm equipment to electric equipment? Check "N/A" if the project does not contain any agricultural or farming operations; if the SDAPCD incentive program is no longer available; or if funding for the incentive program has been exhausted.	A-1.1	☐	☐	☒
7b. Project Detail: Please substantiate how the project satisfies question 7a. The Project does not propose any agricultural or farming operations.				

[4] http://www.sandiegocounty.gov/content/dam/sdc/cob/ordinances/ord10427.pdf.

[5] Existing agricultural operations would not be subject to questions 7 and 8 of the Checklist, unless a proposed expansion is subject to discretionary review and requires environmental review pursuant to CEQA.

Step 2: CAP Measures Consistency				
Checklist Item (Check the appropriate box and provide an explanation for your answer)	CAP Measure	Yes	No	N/A
8a. Electric Irrigation Pumps Will the project use SDAPCD's farm equipment incentive program to convert diesel- or gas-powered irrigation pumps to electric irrigation pumps? Check "N/A" if the project does not contain any agricultural or farming operations; if the SDAPCD incentive program is no longer available; or if funding for the incentive program has been exhausted.	A-1.2	☐	☐	☒

8b. Project Detail:
Please substantiate how the project satisfies question 8a.
The Project does not propose any agricultural or farming operations.

Tree Planting				
9a. Tree Planting <u>Residential:</u> For residential projects, will the project plant, at a minimum, two trees per every new residential dwelling unit proposed? Check "N/A" if the project is a non-residential project.	A-2.1	☒	☐	☐

9b. Project Detail:
Please substantiate how the project satisfies question 9a.
Confirmation of the tree plantings required by this measure shall be verified in conjunction with County review of the master landscape plan design and compliance with this measure shall be made a condition of the Project's approvals. The Project is a single lot and would be required to plant two trees. The Project will plant more than two trees.

ATTACHMENT B

SDG&E GHG Energy Emission Factors with RPS

SDG&E GHG Energy Emission Factors with RPS

Year	RPS Achieved	Co2 Intensity	CH4 Intensity	N2O Intensity	
2009	**10.50%**	**720.49**	**0.0290**	**0.0060**	
2015	**20.0%**	**644.01**	**0.0259**	**0.0054**	
2020	**33.0%**	**539.36**	**0.0217**	**0.0045**	**33% Required by Law**
2021	**34.7%**	**525.68**	**0.0212**	**0.0044**	
2022	**36.4%**	**511.99**	**0.0206**	**0.0043**	
2023	**38.1%**	**498.31**	**0.0201**	**0.0041**	
2024	**39.8%**	**484.62**	**0.0195**	**0.0040**	
2025	**41.5%**	**470.93**	**0.0190**	**0.0039**	
2026	**43.2%**	**457.25**	**0.0184**	**0.0038**	
2027	**44.9%**	**443.56**	**0.0179**	**0.0037**	
2028	**46.6%**	**429.88**	**0.0173**	**0.0036**	
2029	**48.3%**	**416.19**	**0.0168**	**0.0035**	
2030	**50.0%**	**402.51**	**0.0162**	**0.0034**	50% Required by Law

ATTACHMENT C

High Efficiency LED Lighting

High Efficiency Lighting

The lighting intensity in CalEEMod is the same for historical buildings and new developments for residential uses. The lighting intensity for non-residential uses is 20% better in CalEEMod following a requirement that half of the outdoor lighting is High Efficiency (HE) lighting as can be seen in the Default Data Tables within the CalEEMod User Manual Appendix D. The number has not been adjusted or changed in Versions 2011, 2013 or 2016 that would account for better lighting technologies. HE lighting is not required per code with the exception of 50% of the outdoor lighting, as stated above, unless additional lighting is needed to meet an allowable lighting requirement. Based on conversations with Architects and Energy Consultants, it was concluded that no interior high efficiency (HE) lighting would be needed to meet Code compliance. Therefore, the use of high efficiency lighting (LED is one example) would be above and beyond code. The amount of energy needed in the interior of the building is typically higher than the amount of energy needed outdoors. Indoor HE lighting is 75-90% more efficient than standard lighting.

Example: a 10 watt LED bulb replaces a 60 watt standard bulb, which would be 83% more efficient. A 15 watt LED bulb has an equivalent rating of a 100 watt standard bulb. Outdoor HE lighting is 65-80% more efficient than standard lighting. For example: a 70 watt LED bulb replaces a 250 watt standard bulb, which would be 72% more efficient. If the developer installs 100% HE fixtures and bulbs, this would reduce the energy usage from lighting more than 70% as can be seen in the tables below. To be conservative, the lighting intensity in CalEEMod was adjusted 65% with the installation of 100% HE bulbs to account for additional outdoor lighting needs.

100% HE for smaller buildings (i.e., residential and small commercial uses)

	Standard Lights	HE Lights	Standard Wattage	HE Wattage	Energy Use (Standard)	Energy Use (HE)	Total Energy
CalEEMod Lighting	60[1]	10	100	15	6,000	150	6,150
100% HE Lighting	0	70	--	15	----	1,050	1,050
						Savings	5,000
						% Reduction	81%

[1] All indoor lighting is standard bulbs and half of the outdoor lighting is standard bulbs.

100% HE for larger buildings (i.e., commercial and industrial uses)

	Indoor Lights	Indoor Wattage	Energy Use (Indoor)	Outdoor Lights (50% HE)	Outdoor Wattage (Standard/HE)	Energy Use (Outdoor)	Total Energy
Historical Lighting	100	60	6,000	30	250/70	7,500	13,500
Standard Lighting	100	60	6,000	15/15[1]	250/70	3,750/1,050	10,800[2]
100% HE Lighting	100	10	1,000	30	0/70	0/2,100	3,100
						Savings	7,700
						% Reduction	71%

[1] All indoor lighting is standard bulbs and half of the outdoor lighting is standard bulbs.

[2] Assumed 20% reduction within CalEEMod lighting intensity.

ATTACHMENT D

CALEEMOD 2016.3.2 (Proposed Project)

Carefield Senior Living - Bonsall

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	44.00	Space	0.40	17,600.00	0
Congregate Care (Assisted Living)	80.00	Dwelling Unit	4.20	74,000.00	229

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	511.99	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2022

Land Use - Facility is 74,000 on 4.6 acres

Construction Phase - Construction Scheadule

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Architectural Coating - Rule 67 paint

Vehicle Trips - Per TS

Woodstoves - No Fireplaces will be installed

Area Coating - Rule 67 Paint

Energy Use -

Construction Off-road Equipment Mitigation - Tier 4

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	100.00
tblArchitecturalCoating	EF_Parking	250.00	100.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	100.00
tblAreaCoating	Area_EF_Parking	250	100
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	100
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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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
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	NumberGas	44.00	0.00
tblFireplaces	NumberNoFireplace	8.00	80.00
tblFireplaces	NumberWood	28.00	0.00
tblLandUse	LandUseSquareFeet	80,000.00	74,000.00
tblLandUse	LotAcreage	5.00	4.20
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	511.99
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	HO_TTP	39.60	40.00
tblVehicleTrips	HS_TTP	18.80	18.00
tblVehicleTrips	HW_TTP	41.60	42.00
tblVehicleTrips	ST_TR	2.20	2.98
tblVehicleTrips	SU_TR	2.44	2.98
tblVehicleTrips	WD_TR	2.74	2.98
tblWoodstoves	NumberCatalytic	4.00	0.00
tblWoodstoves	NumberNoncatalytic	4.00	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					
2020	0.2501	2.1116	1.9332	3.6900e-003	0.1533	0.1144	0.2677	0.0602	0.1073	0.1676	0.0000	324.4337	324.4337	0.0620	0.0000	325.9832
2021	0.5283	0.5215	0.5527	1.0500e-003	0.0231	0.0271	0.0502	6.1700e-003	0.0255	0.0316	0.0000	91.9889	91.9889	0.0178	0.0000	92.4330
Maximum	**0.5283**	**2.1116**	**1.9332**	**3.6900e-003**	**0.1533**	**0.1144**	**0.2677**	**0.0602**	**0.1073**	**0.1676**	**0.0000**	**324.4337**	**324.4337**	**0.0620**	**0.0000**	**325.9832**

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	0.0679	0.3519	1.9947	3.6900e-003	0.1533	1.6500e-003	0.1550	0.0602	1.5900e-003	0.0618	0.0000	324.4334	324.4334	0.0620	0.0000	325.9830
2021	0.4847	0.0910	0.5881	1.0500e-003	0.0231	3.8000e-004	0.0235	6.1700e-003	3.6000e-004	6.5300e-003	0.0000	91.9888	91.9888	0.0178	0.0000	92.4329
Maximum	**0.4847**	**0.3519**	**1.9947**	**3.6900e-003**	**0.1533**	**1.6500e-003**	**0.1550**	**0.0602**	**1.5900e-003**	**0.0618**	**0.0000**	**324.4334**	**324.4334**	**0.0620**	**0.0000**	**325.9830**

	ROG	NOx	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	**29.01**	**83.18**	**-3.90**	**0.00**	**0.00**	**98.57**	**43.87**	**0.00**	**98.53**	**65.69**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2020	6-30-2020	0.8305	0.1291
2	7-1-2020	9-30-2020	0.7590	0.1432
3	10-1-2020	12-31-2020	0.7617	0.1458
4	1-1-2021	3-31-2021	0.5682	0.1083
5	4-1-2021	6-30-2021	0.4975	0.4827
		Highest	0.8305	0.4827

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3547	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945
Energy	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	107.5514	107.5514	3.7200e-003	1.1700e-003	107.9941
Mobile	0.0768	0.3575	1.0125	3.7200e-003	0.3337	3.0700e-003	0.3368	0.0894	2.8700e-003	0.0922	0.0000	342.7810	342.7810	0.0172	0.0000	343.2115
Waste						0.0000	0.0000		0.0000	0.0000	14.8183	0.0000	14.8183	0.8757	0.0000	36.7118
Water						0.0000	0.0000		0.0000	0.0000	1.6536	24.2401	25.8937	0.1708	4.2000e-003	31.4162
Total	**0.4347**	**0.3918**	**1.6192**	**3.9200e-003**	**0.3337**	**8.5700e-003**	**0.3423**	**0.0894**	**8.3700e-003**	**0.0977**	**16.4720**	**475.5435**	**492.0155**	**1.0685**	**5.3700e-003**	**520.3281**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3547	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945
Energy	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	97.6677	97.6677	3.3100e-003	1.1000e-003	98.0773
Mobile	0.0768	0.3575	1.0125	3.7200e-003	0.3337	3.0700e-003	0.3368	0.0894	2.8700e-003	0.0922	0.0000	342.7810	342.7810	0.0172	0.0000	343.2115
Waste						0.0000	0.0000		0.0000	0.0000	11.1138	0.0000	11.1138	0.6568	0.0000	27.5339
Water						0.0000	0.0000		0.0000	0.0000	1.3229	17.6964	19.0193	0.1366	3.3500e-003	23.4316
Total	**0.4347**	**0.3918**	**1.6192**	**3.9200e-003**	**0.3337**	**8.5700e-003**	**0.3423**	**0.0894**	**8.3700e-003**	**0.0977**	**12.4367**	**459.1162**	**471.5529**	**0.8149**	**4.4500e-003**	**493.2488**

	ROG	NOx	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**	**24.50**	**3.45**	**4.16**	**23.73**	**17.13**	**5.20**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/7/2020	5	5	
2	Grading	Grading	4/8/2020	4/17/2020	5	8	
3	Building Construction	Building Construction	4/18/2020	3/5/2021	5	230	
4	Paving	Paving	3/6/2021	3/31/2021	5	18	
5	Architectural Coating	Architectural Coating	4/1/2021	4/26/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0.4

Residential Indoor: 149,850; Residential Outdoor: 49,950; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 1,056 (Architectural Coating – sqft)

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	65.00	11.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

3.2 Site Preparation - 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					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4253**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
Total	**2.3000e-004**	**1.8000e-004**	**1.7400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5023**	**0.5023**	**1.0000e-005**	**0.0000**	**0.5026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1600e-003	5.0400e-003	0.0522	1.0000e-004		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4252
Total	**1.1600e-003**	**5.0400e-003**	**0.0522**	**1.0000e-004**	**0.0452**	**2.0000e-005**	**0.0452**	**0.0248**	**2.0000e-005**	**0.0249**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4252**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
Total	**2.3000e-004**	**1.8000e-004**	**1.7400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5023**	**0.5023**	**1.0000e-005**	**0.0000**	**0.5026**

3.3 Grading - 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					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
Total	**3.1000e-004**	**2.4000e-004**	**2.3300e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6697**	**0.6697**	**2.0000e-005**	**0.0000**	**0.6702**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4500e-003	6.2900e-003	0.0710	1.2000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**1.4500e-003**	**6.2900e-003**	**0.0710**	**1.2000e-004**	**0.0262**	**3.0000e-005**	**0.0262**	**0.0135**	**3.0000e-005**	**0.0135**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
Total	**3.1000e-004**	**2.4000e-004**	**2.3300e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6697**	**0.6697**	**2.0000e-005**	**0.0000**	**0.6702**

3.4 Building Construction - 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	0.1950	1.7651	1.5501	2.4800e-003		0.1028	0.1028		0.0966	0.0966	0.0000	213.0812	213.0812	0.0520	0.0000	214.3808
Total	**0.1950**	**1.7651**	**1.5501**	**2.4800e-003**		**0.1028**	**0.1028**		**0.0966**	**0.0966**	**0.0000**	**213.0812**	**213.0812**	**0.0520**	**0.0000**	**214.3808**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6300e-003	0.1102	0.0292	2.5000e-004	6.0800e-003	5.1000e-004	6.5900e-003	1.7500e-003	4.9000e-004	2.2400e-003	0.0000	24.6534	24.6534	1.9500e-003	0.0000	24.7021
Worker	0.0310	0.0243	0.2318	7.4000e-004	0.0746	5.2000e-004	0.0751	0.0198	4.7000e-004	0.0203	0.0000	66.7460	66.7460	1.9400e-003	0.0000	66.7945
Total	**0.0346**	**0.1345**	**0.2611**	**9.9000e-004**	**0.0806**	**1.0300e-003**	**0.0817**	**0.0216**	**9.6000e-004**	**0.0225**	**0.0000**	**91.3994**	**91.3994**	**3.8900e-003**	**0.0000**	**91.4966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0302	0.2056	1.6063	2.4800e-003		5.6000e-004	5.6000e-004		5.6000e-004	5.6000e-004	0.0000	213.0809	213.0809	0.0520	0.0000	214.3805
Total	**0.0302**	**0.2056**	**1.6063**	**2.4800e-003**		**5.6000e-004**	**5.6000e-004**		**5.6000e-004**	**5.6000e-004**	**0.0000**	**213.0809**	**213.0809**	**0.0520**	**0.0000**	**214.3805**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.6300e-003	0.1102	0.0292	2.5000e-004	6.0800e-003	5.1000e-004	6.5900e-003	1.7500e-003	4.9000e-004	2.2400e-003	0.0000	24.6534	24.6534	1.9500e-003	0.0000	24.7021
Worker	0.0310	0.0243	0.2318	7.4000e-004	0.0746	5.2000e-004	0.0751	0.0198	4.7000e-004	0.0203	0.0000	66.7460	66.7460	1.9400e-003	0.0000	66.7945
Total	**0.0346**	**0.1345**	**0.2611**	**9.9000e-004**	**0.0806**	**1.0300e-003**	**0.0817**	**0.0216**	**9.6000e-004**	**0.0225**	**0.0000**	**91.3994**	**91.3994**	**3.8900e-003**	**0.0000**	**91.4966**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0437	0.4009	0.3812	6.2000e-004		0.0221	0.0221		0.0207	0.0207	0.0000	53.2766	53.2766	0.0129	0.0000	53.5979
Total	**0.0437**	**0.4009**	**0.3812**	**6.2000e-004**		**0.0221**	**0.0221**		**0.0207**	**0.0207**	**0.0000**	**53.2766**	**53.2766**	**0.0129**	**0.0000**	**53.5979**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.4000e-004	0.0249	6.6200e-003	6.0000e-005	1.5200e-003	5.0000e-005	1.5700e-003	4.4000e-004	5.0000e-005	4.9000e-004	0.0000	6.1067	6.1067	4.7000e-004	0.0000	6.1184
Worker	7.3200e-003	5.5200e-003	0.0542	1.8000e-004	0.0186	1.3000e-004	0.0188	4.9500e-003	1.2000e-004	5.0700e-003	0.0000	16.1255	16.1255	4.5000e-004	0.0000	16.1367
Total	**8.0600e-003**	**0.0305**	**0.0608**	**2.4000e-004**	**0.0202**	**1.8000e-004**	**0.0203**	**5.3900e-003**	**1.7000e-004**	**5.5600e-003**	**0.0000**	**22.2322**	**22.2322**	**9.2000e-004**	**0.0000**	**22.2551**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.5400e-003	0.0514	0.4016	6.2000e-004		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	53.2765	53.2765	0.0129	0.0000	53.5978
Total	**7.5400e-003**	**0.0514**	**0.4016**	**6.2000e-004**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**53.2765**	**53.2765**	**0.0129**	**0.0000**	**53.5978**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.4000e-004	0.0249	6.6200e-003	6.0000e-005	1.5200e-003	5.0000e-005	1.5700e-003	4.4000e-004	5.0000e-005	4.9000e-004	0.0000	6.1067	6.1067	4.7000e-004	0.0000	6.1184
Worker	7.3200e-003	5.5200e-003	0.0542	1.8000e-004	0.0186	1.3000e-004	0.0188	4.9500e-003	1.2000e-004	5.0700e-003	0.0000	16.1255	16.1255	4.5000e-004	0.0000	16.1367
Total	**8.0600e-003**	**0.0305**	**0.0608**	**2.4000e-004**	**0.0202**	**1.8000e-004**	**0.0203**	**5.3900e-003**	**1.7000e-004**	**5.5600e-003**	**0.0000**	**22.2322**	**22.2322**	**9.2000e-004**	**0.0000**	**22.2551**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	7.3700e-003	0.0755	0.0858	1.3000e-004		4.0100e-003	4.0100e-003		3.6900e-003	3.6900e-003	0.0000	11.6581	11.6581	3.7700e-003	0.0000	11.7524
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.8900e-003**	**0.0755**	**0.0858**	**1.3000e-004**		**4.0100e-003**	**4.0100e-003**		**3.6900e-003**	**3.6900e-003**	**0.0000**	**11.6581**	**11.6581**	**3.7700e-003**	**0.0000**	**11.7524**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.7000e-004	4.3000e-004	4.2400e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2620	1.2620	4.0000e-005	0.0000	1.2629
Total	**5.7000e-004**	**4.3000e-004**	**4.2400e-003**	**1.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4700e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2620**	**1.2620**	**4.0000e-005**	**0.0000**	**1.2629**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6300e-003	7.0800e-003	0.1007	1.3000e-004		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	11.6581	11.6581	3.7700e-003	0.0000	11.7524
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.1500e-003**	**7.0800e-003**	**0.1007**	**1.3000e-004**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**11.6581**	**11.6581**	**3.7700e-003**	**0.0000**	**11.7524**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.7000e-004	4.3000e-004	4.2400e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2620	1.2620	4.0000e-005	0.0000	1.2629
Total	**5.7000e-004**	**4.3000e-004**	**4.2400e-003**	**1.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4700e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2620**	**1.2620**	**4.0000e-005**	**0.0000**	**1.2629**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.4655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.4675**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.7000e-004	4.3000e-004	4.2400e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2620	1.2620	4.0000e-005	0.0000	1.2629
Total	**5.7000e-004**	**4.3000e-004**	**4.2400e-003**	**1.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4700e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2620**	**1.2620**	**4.0000e-005**	**0.0000**	**1.2629**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.4655					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-004	1.1600e-003	0.0165	3.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.4658**	**1.1600e-003**	**0.0165**	**3.0000e-005**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.7000e-004	4.3000e-004	4.2400e-003	1.0000e-005	1.4600e-003	1.0000e-005	1.4700e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.2620	1.2620	4.0000e-005	0.0000	1.2629
Total	**5.7000e-004**	**4.3000e-004**	**4.2400e-003**	**1.0000e-005**	**1.4600e-003**	**1.0000e-005**	**1.4700e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2620**	**1.2620**	**4.0000e-005**	**0.0000**	**1.2629**

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	0.0768	0.3575	1.0125	3.7200e-003	0.3337	3.0700e-003	0.3368	0.0894	2.8700e-003	0.0922	0.0000	342.7810	342.7810	0.0172	0.0000	343.2115
Unmitigated	0.0768	0.3575	1.0125	3.7200e-003	0.3337	3.0700e-003	0.3368	0.0894	2.8700e-003	0.0922	0.0000	342.7810	342.7810	0.0172	0.0000	343.2115

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	238.40	238.40	238.40	885,472	885,472
Parking Lot	0.00	0.00	0.00		
Total	238.40	238.40	238.40	885,472	885,472

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
Congregate Care (Assisted	16.80	7.10	7.90	42.00	18.00	40.00	86	11	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122
Parking Lot	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

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	65.9536	65.9536	2.7100e-003	5.2000e-004	66.1748
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	75.8373	75.8373	3.1100e-003	5.9000e-004	76.0916
NaturalGas Mitigated	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7141	31.7141	6.1000e-004	5.8000e-004	31.9025
NaturalGas Unmitigated	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7141	31.7141	6.1000e-004	5.8000e-004	31.9025

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					
Congregate Care (Assisted Living)	594299	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7141	31.7141	6.1000e-004	5.8000e-004	31.9025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2000e-003**	**0.0274**	**0.0117**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7141**	**31.7141**	**6.1000e-004**	**5.8000e-004**	**31.9025**

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					
Congregate Care (Assisted Living)	594299	3.2000e-003	0.0274	0.0117	1.7000e-004		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	31.7141	31.7141	6.1000e-004	5.8000e-004	31.9025
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2000e-003**	**0.0274**	**0.0117**	**1.7000e-004**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**31.7141**	**31.7141**	**6.1000e-004**	**5.8000e-004**	**31.9025**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	320394	74.4067	3.0500e-003	5.8000e-004	74.6562
Parking Lot	6160	1.4306	6.0000e-005	1.0000e-005	1.4354
Total		**75.8373**	**3.1100e-003**	**5.9000e-004**	**76.0916**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	281840	65.4529	2.6800e-003	5.1000e-004	65.6724
Parking Lot	2156	0.5007	2.0000e-005	0.0000	0.5024
Total		**65.9536**	**2.7000e-003**	**5.1000e-004**	**66.1748**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3547	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945
Unmitigated	0.3547	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945

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	0.0466					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0180	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945
Total	**0.3547**	**6.8600e-003**	**0.5951**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**0.9711**	**0.9711**	**9.4000e-004**	**0.0000**	**0.9945**

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	0.0466					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2901					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0180	6.8600e-003	0.5951	3.0000e-005		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	0.9711	0.9711	9.4000e-004	0.0000	0.9945
Total	**0.3547**	**6.8600e-003**	**0.5951**	**3.0000e-005**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**0.9711**	**0.9711**	**9.4000e-004**	**0.0000**	**0.9945**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	19.0193	0.1366	3.3500e-003	23.4316
Unmitigated	25.8937	0.1708	4.2000e-003	31.4162

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.21232 / 3.28603	25.8937	0.1708	4.2000e-003	31.4162
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**25.8937**	**0.1708**	**4.2000e-003**	**31.4162**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	4.16986 / 1.97162	19.0193	0.1366	3.3500e-003	23.4316
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**19.0193**	**0.1366**	**3.3500e-003**	**23.4316**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.1138	0.6568	0.0000	27.5339
Unmitigated	14.8183	0.8757	0.0000	36.7118

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	73	14.8183	0.8757	0.0000	36.7118
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**14.8183**	**0.8757**	**0.0000**	**36.7118**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	54.75	11.1138	0.6568	0.0000	27.5339
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**11.1138**	**0.6568**	**0.0000**	**27.5339**

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 E

CALEEMOD 2016.3.2 (GP Scenario)

Carefield GP

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	50.00	1000sqft	4.60	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2022
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	511.99	**CH4 Intensity (lb/MWhr)**	0.021	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - RPS 2022

Land Use - 4.6 acre site

Construction Phase -

Energy Use -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Carefield GP - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	1.15	4.60
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.021
tblProjectCharacteristics	CO2IntensityFactor	720.49	511.99
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

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	0.2258	2.0633	1.7505	3.0700e-003	0.0955	0.1139	0.2093	0.0448	0.1069	0.1517	0.0000	267.3938	267.3938	0.0600	0.0000	268.8935
2021	0.6383	0.5325	0.5336	9.3000e-004	8.2700e-003	0.0282	0.0365	2.2200e-003	0.0265	0.0287	0.0000	80.9514	80.9514	0.0182	0.0000	81.4052
Maximum	**0.6383**	**2.0633**	**1.7505**	**3.0700e-003**	**0.0955**	**0.1139**	**0.2093**	**0.0448**	**0.1069**	**0.1517**	**0.0000**	**267.3938**	**267.3938**	**0.0600**	**0.0000**	**268.8935**

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	0.2257	2.0633	1.7505	3.0700e-003	0.0955	0.1139	0.2093	0.0448	0.1069	0.1517	0.0000	267.3936	267.3936	0.0600	0.0000	268.8933
2021	0.6383	0.5325	0.5336	9.3000e-004	8.2700e-003	0.0282	0.0365	2.2200e-003	0.0265	0.0287	0.0000	80.9514	80.9514	0.0182	0.0000	81.4052
Maximum	**0.6383**	**2.0633**	**1.7505**	**3.0700e-003**	**0.0955**	**0.1139**	**0.2093**	**0.0448**	**0.1069**	**0.1517**	**0.0000**	**267.3936**	**267.3936**	**0.0600**	**0.0000**	**268.8933**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	1-9-2020	4-8-2020	0.1270	0.1270
4	4-9-2020	7-8-2020	0.7472	0.7472
5	7-9-2020	10-8-2020	0.7340	0.7340
6	10-9-2020	1-8-2021	0.7287	0.7287
7	1-9-2021	4-8-2021	0.7072	0.7072
8	4-9-2021	7-8-2021	0.4252	0.4252
		Highest	0.7472	0.7472

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2533	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	209.9325	209.9325	7.4300e-003	2.2100e-003	210.7760
Mobile	0.1178	0.5243	1.4064	4.9300e-003	0.4359	4.1300e-003	0.4401	0.1167	3.8500e-003	0.1206	0.0000	454.8700	454.8700	0.0237	0.0000	455.4630
Waste						0.0000	0.0000		0.0000	0.0000	9.4391	0.0000	9.4391	0.5578	0.0000	23.3849
Water						0.0000	0.0000		0.0000	0.0000	2.8193	40.9258	43.7452	0.2913	7.1600e-003	53.1593
Total	**0.3765**	**0.5738**	**1.4484**	**5.2300e-003**	**0.4359**	**7.8900e-003**	**0.4438**	**0.1167**	**7.6100e-003**	**0.1244**	**12.2584**	**705.7293**	**717.9877**	**0.8802**	**9.3700e-003**	**742.7842**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2533	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Energy	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	181.1761	181.1761	6.2500e-003	1.9800e-003	181.9231
Mobile	0.1178	0.5243	1.4064	4.9300e-003	0.4359	4.1300e-003	0.4401	0.1167	3.8500e-003	0.1206	0.0000	454.8700	454.8700	0.0237	0.0000	455.4630
Waste						0.0000	0.0000		0.0000	0.0000	7.0793	0.0000	7.0793	0.4184	0.0000	17.5387
Water						0.0000	0.0000		0.0000	0.0000	2.2555	29.9301	32.1855	0.2329	5.7000e-003	39.7074
Total	**0.3765**	**0.5738**	**1.4484**	**5.2300e-003**	**0.4359**	**7.8900e-003**	**0.4438**	**0.1167**	**7.6100e-003**	**0.1244**	**9.3348**	**665.9770**	**675.3118**	**0.6812**	**7.6800e-003**	**694.6331**

	ROG	NOx	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**	**23.85**	**5.63**	**5.94**	**22.61**	**18.04**	**6.48**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/7/2020	5	5	
2	Grading	Grading	4/8/2020	4/17/2020	5	8	
3	Building Construction	Building Construction	4/18/2020	3/5/2021	5	230	
4	Paving	Paving	3/6/2021	3/31/2021	5	18	
5	Architectural Coating	Architectural Coating	4/1/2021	4/26/2021	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	16.00	8.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 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					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4253
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4253**

3.2 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
Total	**2.3000e-004**	**1.8000e-004**	**1.7400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5023**	**0.5023**	**1.0000e-005**	**0.0000**	**0.5026**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0102	0.1060	0.0538	1.0000e-004		5.4900e-003	5.4900e-003		5.0500e-003	5.0500e-003	0.0000	8.3577	8.3577	2.7000e-003	0.0000	8.4252
Total	**0.0102**	**0.1060**	**0.0538**	**1.0000e-004**	**0.0452**	**5.4900e-003**	**0.0507**	**0.0248**	**5.0500e-003**	**0.0299**	**0.0000**	**8.3577**	**8.3577**	**2.7000e-003**	**0.0000**	**8.4252**

3.2 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.8000e-004	1.7400e-003	1.0000e-005	5.6000e-004	0.0000	5.6000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5023	0.5023	1.0000e-005	0.0000	0.5026
Total	**2.3000e-004**	**1.8000e-004**	**1.7400e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**	**5.6000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5023**	**0.5023**	**1.0000e-005**	**0.0000**	**0.5026**

3.3 Grading - 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					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.3 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
Total	**3.1000e-004**	**2.4000e-004**	**2.3300e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6697**	**0.6697**	**2.0000e-005**	**0.0000**	**0.6702**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7200e-003	0.1055	0.0642	1.2000e-004		5.0900e-003	5.0900e-003		4.6900e-003	4.6900e-003	0.0000	10.4235	10.4235	3.3700e-003	0.0000	10.5078
Total	**9.7200e-003**	**0.1055**	**0.0642**	**1.2000e-004**	**0.0262**	**5.0900e-003**	**0.0313**	**0.0135**	**4.6900e-003**	**0.0182**	**0.0000**	**10.4235**	**10.4235**	**3.3700e-003**	**0.0000**	**10.5078**

3.3 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	3.1000e-004	2.4000e-004	2.3300e-003	1.0000e-005	7.5000e-004	1.0000e-005	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6697	0.6697	2.0000e-005	0.0000	0.6702
Total	**3.1000e-004**	**2.4000e-004**	**2.3300e-003**	**1.0000e-005**	**7.5000e-004**	**1.0000e-005**	**7.5000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6697**	**0.6697**	**2.0000e-005**	**0.0000**	**0.6702**

3.4 Building Construction - 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	0.1950	1.7651	1.5501	2.4800e-003		0.1028	0.1028		0.0966	0.0966	0.0000	213.0812	213.0812	0.0520	0.0000	214.3808
Total	**0.1950**	**1.7651**	**1.5501**	**2.4800e-003**		**0.1028**	**0.1028**		**0.0966**	**0.0966**	**0.0000**	**213.0812**	**213.0812**	**0.0520**	**0.0000**	**214.3808**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.6400e-003	0.0802	0.0213	1.8000e-004	4.4200e-003	3.7000e-004	4.7900e-003	1.2800e-003	3.6000e-004	1.6300e-003	0.0000	17.9297	17.9297	1.4200e-003	0.0000	17.9652
Worker	7.6300e-003	5.9700e-003	0.0571	1.8000e-004	0.0184	1.3000e-004	0.0185	4.8800e-003	1.2000e-004	4.9900e-003	0.0000	16.4298	16.4298	4.8000e-004	0.0000	16.4417
Total	**0.0103**	**0.0861**	**0.0783**	**3.6000e-004**	**0.0228**	**5.0000e-004**	**0.0233**	**6.1600e-003**	**4.8000e-004**	**6.6200e-003**	**0.0000**	**34.3595**	**34.3595**	**1.9000e-003**	**0.0000**	**34.4069**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1950	1.7651	1.5501	2.4800e-003		0.1028	0.1028		0.0966	0.0966	0.0000	213.0809	213.0809	0.0520	0.0000	214.3805
Total	**0.1950**	**1.7651**	**1.5501**	**2.4800e-003**		**0.1028**	**0.1028**		**0.0966**	**0.0966**	**0.0000**	**213.0809**	**213.0809**	**0.0520**	**0.0000**	**214.3805**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	2.6400e-003	0.0802	0.0213	1.8000e-004	4.4200e-003	3.7000e-004	4.7900e-003	1.2800e-003	3.6000e-004	1.6300e-003	0.0000	17.9297	17.9297	1.4200e-003	0.0000	17.9652
Worker	7.6300e-003	5.9700e-003	0.0571	1.8000e-004	0.0184	1.3000e-004	0.0185	4.8800e-003	1.2000e-004	4.9900e-003	0.0000	16.4298	16.4298	4.8000e-004	0.0000	16.4417
Total	**0.0103**	**0.0861**	**0.0783**	**3.6000e-004**	**0.0228**	**5.0000e-004**	**0.0233**	**6.1600e-003**	**4.8000e-004**	**6.6200e-003**	**0.0000**	**34.3595**	**34.3595**	**1.9000e-003**	**0.0000**	**34.4069**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0437	0.4009	0.3812	6.2000e-004		0.0221	0.0221		0.0207	0.0207	0.0000	53.2766	53.2766	0.0129	0.0000	53.5979
Total	**0.0437**	**0.4009**	**0.3812**	**6.2000e-004**		**0.0221**	**0.0221**		**0.0207**	**0.0207**	**0.0000**	**53.2766**	**53.2766**	**0.0129**	**0.0000**	**53.5979**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.4000e-004	0.0181	4.8200e-003	5.0000e-005	1.1000e-003	4.0000e-005	1.1400e-003	3.2000e-004	4.0000e-005	3.5000e-004	0.0000	4.4413	4.4413	3.4000e-004	0.0000	4.4498
Worker	1.8000e-003	1.3600e-003	0.0133	4.0000e-005	4.5900e-003	3.0000e-005	4.6200e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.9694	3.9694	1.1000e-004	0.0000	3.9721
Total	**2.3400e-003**	**0.0195**	**0.0182**	**9.0000e-005**	**5.6900e-003**	**7.0000e-005**	**5.7600e-003**	**1.5400e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**8.4106**	**8.4106**	**4.5000e-004**	**0.0000**	**8.4219**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0437	0.4009	0.3812	6.2000e-004		0.0221	0.0221		0.0207	0.0207	0.0000	53.2765	53.2765	0.0129	0.0000	53.5978
Total	**0.0437**	**0.4009**	**0.3812**	**6.2000e-004**		**0.0221**	**0.0221**		**0.0207**	**0.0207**	**0.0000**	**53.2765**	**53.2765**	**0.0129**	**0.0000**	**53.5978**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	5.4000e-004	0.0181	4.8200e-003	5.0000e-005	1.1000e-003	4.0000e-005	1.1400e-003	3.2000e-004	4.0000e-005	3.5000e-004	0.0000	4.4413	4.4413	3.4000e-004	0.0000	4.4498
Worker	1.8000e-003	1.3600e-003	0.0133	4.0000e-005	4.5900e-003	3.0000e-005	4.6200e-003	1.2200e-003	3.0000e-005	1.2500e-003	0.0000	3.9694	3.9694	1.1000e-004	0.0000	3.9721
Total	**2.3400e-003**	**0.0195**	**0.0182**	**9.0000e-005**	**5.6900e-003**	**7.0000e-005**	**5.7600e-003**	**1.5400e-003**	**7.0000e-005**	**1.6000e-003**	**0.0000**	**8.4106**	**8.4106**	**4.5000e-004**	**0.0000**	**8.4219**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7336	14.7336	4.6300e-003	0.0000	14.8493
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8500e-003**	**0.0976**	**0.1103**	**1.7000e-004**		**5.2100e-003**	**5.2100e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**14.7336**	**14.7336**	**4.6300e-003**	**0.0000**	**14.8493**

3.5 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.6000e-004	6.5300e-003	2.0000e-005	2.2400e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.9415	1.9415	5.0000e-005	0.0000	1.9429
Total	**8.8000e-004**	**6.6000e-004**	**6.5300e-003**	**2.0000e-005**	**2.2400e-003**	**2.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.9415**	**1.9415**	**5.0000e-005**	**0.0000**	**1.9429**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	9.8500e-003	0.0976	0.1103	1.7000e-004		5.2100e-003	5.2100e-003		4.8100e-003	4.8100e-003	0.0000	14.7335	14.7335	4.6300e-003	0.0000	14.8493
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.8500e-003**	**0.0976**	**0.1103**	**1.7000e-004**		**5.2100e-003**	**5.2100e-003**		**4.8100e-003**	**4.8100e-003**	**0.0000**	**14.7335**	**14.7335**	**4.6300e-003**	**0.0000**	**14.8493**

3.5 Paving - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.6000e-004	6.5300e-003	2.0000e-005	2.2400e-003	2.0000e-005	2.2600e-003	6.0000e-004	1.0000e-005	6.1000e-004	0.0000	1.9415	1.9415	5.0000e-005	0.0000	1.9429
Total	**8.8000e-004**	**6.6000e-004**	**6.5300e-003**	**2.0000e-005**	**2.2400e-003**	**2.0000e-005**	**2.2600e-003**	**6.0000e-004**	**1.0000e-005**	**6.1000e-004**	**0.0000**	**1.9415**	**1.9415**	**5.0000e-005**	**0.0000**	**1.9429**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.5794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.5814**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2912	0.2912	1.0000e-005	0.0000	0.2914
Total	**1.3000e-004**	**1.0000e-004**	**9.8000e-004**	**0.0000**	**3.4000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2912**	**0.2912**	**1.0000e-005**	**0.0000**	**0.2914**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.5794					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9700e-003	0.0137	0.0164	3.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	2.2979	2.2979	1.6000e-004	0.0000	2.3019
Total	**0.5814**	**0.0137**	**0.0164**	**3.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.6000e-004**	**0.0000**	**2.3019**

3.6 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.8000e-004	0.0000	3.4000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2912	0.2912	1.0000e-005	0.0000	0.2914
Total	**1.3000e-004**	**1.0000e-004**	**9.8000e-004**	**0.0000**	**3.4000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2912**	**0.2912**	**1.0000e-005**	**0.0000**	**0.2914**

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	0.1178	0.5243	1.4064	4.9300e-003	0.4359	4.1300e-003	0.4401	0.1167	3.8500e-003	0.1206	0.0000	454.8700	454.8700	0.0237	0.0000	455.4630
Unmitigated	0.1178	0.5243	1.4064	4.9300e-003	0.4359	4.1300e-003	0.4401	0.1167	3.8500e-003	0.1206	0.0000	454.8700	454.8700	0.0237	0.0000	455.4630

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	551.50	123.00	52.50	1,156,785	1,156,785
Total	551.50	123.00	52.50	1,156,785	1,156,785

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.598645	0.040929	0.181073	0.106149	0.015683	0.005479	0.016317	0.023976	0.001926	0.001932	0.006016	0.000753	0.001122

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	127.3053	127.3053	5.2200e-003	9.9000e-004	127.7322
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	156.0618	156.0618	6.4000e-003	1.2200e-003	156.5851
NaturalGas Mitigated	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8708	53.8708	1.0300e-003	9.9000e-004	54.1909
NaturalGas Unmitigated	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8708	53.8708	1.0300e-003	9.9000e-004	54.1909

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.0095e+006	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8708	53.8708	1.0300e-003	9.9000e-004	54.1909
Total		**5.4400e-003**	**0.0495**	**0.0416**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8708**	**53.8708**	**1.0300e-003**	**9.9000e-004**	**54.1909**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.0095e+006	5.4400e-003	0.0495	0.0416	3.0000e-004		3.7600e-003	3.7600e-003		3.7600e-003	3.7600e-003	0.0000	53.8708	53.8708	1.0300e-003	9.9000e-004	54.1909
Total		**5.4400e-003**	**0.0495**	**0.0416**	**3.0000e-004**		**3.7600e-003**	**3.7600e-003**		**3.7600e-003**	**3.7600e-003**	**0.0000**	**53.8708**	**53.8708**	**1.0300e-003**	**9.9000e-004**	**54.1909**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	672000	156.0618	6.4000e-003	1.2200e-003	156.5851
Total		**156.0618**	**6.4000e-003**	**1.2200e-003**	**156.5851**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	548175	127.3053	5.2200e-003	9.9000e-004	127.7322
Total		**127.3053**	**5.2200e-003**	**9.9000e-004**	**127.7322**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2533	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Unmitigated	0.2533	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1953					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Total	**0.2533**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.9000e-004**	**8.9000e-004**	**0.0000**	**0.0000**	**9.5000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1953					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.9000e-004	8.9000e-004	0.0000	0.0000	9.5000e-004
Total	**0.2533**	**0.0000**	**4.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.9000e-004**	**8.9000e-004**	**0.0000**	**0.0000**	**9.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	32.1855	0.2329	5.7000e-003	39.7074
Unmitigated	43.7452	0.2913	7.1600e-003	53.1593

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	8.88669 / 5.44668	43.7452	0.2913	7.1600e-003	53.1593
Total		**43.7452**	**0.2913**	**7.1600e-003**	**53.1593**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.10935 / 3.26801	32.1855	0.2329	5.7000e-003	39.7074
Total		**32.1855**	**0.2329**	**5.7000e-003**	**39.7074**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.0793	0.4184	0.0000	17.5387
Unmitigated	9.4391	0.5578	0.0000	23.3849

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	46.5	9.4391	0.5578	0.0000	23.3849
Total		**9.4391**	**0.5578**	**0.0000**	**23.3849**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	34.875	7.0793	0.4184	0.0000	17.5387
Total		**7.0793**	**0.4184**	**0.0000**	**17.5387**

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