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January 5, 2021 SCL-02

Ms. Fiona McKenna
SD Commercial, LLC
5440 Morehouse Drive, Suite 4000
Calimesa, CA 92320

Subject: Memorandum Update to the Greenhouse Gas Analysis for the East Otay Mesa Business Park Specific Plan Amendment

Dear Ms. McKenna:

The project description for the East Otay Mesa Business Park Specific Plan Amendment has been updated for clarification purposes and is as follows:

The Project is an amendment to the East Otay Mesa Business Park Specific Plan and does not involve any specific approvals or entitlements. Future discretionary permits will be required for any development proposals under the Specific Plan. The Project includes changes to land uses and specific plan road network, the land use matrix and development regulations, updates to reflect Caltrans acquisitions for State Route 11 and 125 and increases to the development footprint for the new Port of Entry (POE), and miscellaneous typographical and editorial updates to text, tables and figures. The Project results in the increase of land use designations by approximately 60.8 acres for Mixed-Use – Residential Emphasis, 209.8 acres for Heavy Industrial, 255.91 acres for Circulation Corridors. The Project results in the decrease of land use designations by approximately 53.12 acres for Mixed-Use – Employment Emphasis, 99.11 acres for Mixed Industrial, 107.34 acres for Light Industrial, and 266.94 acres for Technology Business Park.

The revision of acreage in the project description has been made to reflect reduction in future developable land within the Specific Plan Area due to land acquisitions by the California Department of Transportation (Caltrans) for the buildout of SR-125/SR-905/SR-11 interchange and the US/Mexico Port of Entry. Impacts to Air Quality, GHG, Noise, and Traffic related to development on Caltrans acquisition land have been separately analyzed.

A technical analysis for Greenhouse Gases was performed by HELIX Environmental Planning, Inc., dated November 2020. This analysis focused only on changes in land use proposed by the applicant team and did not include reductions in land acreage resulting from Caltrans acquisitions, thereby making the analysis more conservative than that of the full Project due to a larger amount of acreage being

analyzed as available for future development. The inclusion of this reduced development potential would further reduce Project impacts as those identified in the study. No further analysis is required.

Sincerely,

Victor Ortiz
Senior Air Quality and Greenhouse Gas Specialist

HELIX Environmental Planning

East Otay Mesa Business Park Specific Plan Amendment Project

Greenhouse Gas Emissions Technical Report

November 2020 | SCL-02

Prepared for:

SD Commercial, LLC
5440 Morehouse Drive, Suite 4000
San Diego, CA 92121

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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East Otay Mesa Business Park Specific Plan Amendment Project

Greenhouse Gas Emissions Technical Report

Prepared for:

SD Commercial, LLC
5440 Morehouse Drive, Suite 4000
San Diego, CA 92121

Prepared by:

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La Mesa, CA 91942

November 2020 | SCL-02

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADT	average daily trips
C_2F_6	hexafluoroethane
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CF_4	tetraflouromethane
CFCs	chlorofluorocarbons
CH_4	methane
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of San Diego
EIR	Environmental Impact Report
EO	Executive Order
EOM	East Otay Mesa Business Park
GHG	greenhouse gas
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
IPCC	United Nations Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
MPOs	Metropolitan Planning Organizations
MT	metric ton
N_2O	nitrous oxide
NASA	National Aeronautics and Space Administration
NHTSA	National Highway Traffic Safety Administration
NOAA	National Oceanic and Atmospheric Administration
NO_X	oxides of nitrogen
PFCs	perfluorocarbons
ppm	parts per million

ACRONYMS AND ABBREVIATIONS (cont.)

RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF	square foot/square feet
SF_6	sulfur hexafluoride
SP	Specific Plan
SPA	Specific Plan Amendment
USEPA	U.S. Environmental Protection Agency
VMT	vehicle miles traveled
VOC	volatile organic compound
ZEV	zero emissions vehicle

EXECUTIVE SUMMARY

This report analyzes potential greenhouse gas (GHG) emissions impacts associated with the proposed East Otay Mesa Business Park (EOM) Specific Plan (SP) Amendment (SPA; Project). It evaluates the GHG emissions impacts from the Project compared to the what is considered in the Environmental Impact Report (EIR) for the EOM SP, as amended, and assesses whether the changes proposed under the Project would result in a significant change in the impact determination.

Construction of land uses within the Project area and associated emissions would occur regardless of whether the proposed Project would occur. The scope of Project construction is anticipated to be less than or similar to that which was evaluated in the EIR, thus resulting in similar GHG emissions. Operational GHG emissions were calculated for both the existing land uses included in the EOM SP and for the proposed land uses under the EOM SPA. The Project is estimated to result in a reduction in GHGs emissions of 16,730 metric tons (MT) of carbon dioxide equivalents (CO_2e) per year. As such, the Project would not result in new impacts or an increase in severity of impacts as related to GHG emissions or conflict with plans adopted for the purpose of reducing GHG emissions.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report analyzes potential greenhouse gas (GHG) emissions impacts associated with the proposed East Otay Mesa Business Park (EOM) Specific Plan (SP) Amendment (SPA; Project). It evaluates the GHG emissions impacts from the Project compared to the what is considered in the Environmental Impact Report (EIR) for the Otay 250 Sunroad–East Otay Mesa Business Park Specific Plan Amendment (SCH No. 2016031028; County 2018), and assesses whether the changes proposed under the Project would result in a significant change in the impact determinations identified in the EIR. The EIR was prepared for the entire EOM SP area, including the existing land uses on the Project site.

1.2 PROJECT BACKGROUND

The Project would involve several changes to the EOM SP. The original EOM SP and EIR were first approved on July 27, 1994 and has been amended nine times, most recently with SPA-15-001, which was approved on July 25, 2018. SPA-15-001 was evaluated in the Otay 250 Sunroad–East Otay Mesa Business Park Specific Plan Amendment EIR (SCH No. 2016031028; County 2018).

1.3 PROJECT LOCATION AND DESCRIPTION

The Project covers a portion of the 3,013-acre EOM SP, located in an unincorporated area in the southwestern portion of San Diego County, adjacent to the U.S./Mexico border (see Figure 1, *Regional Location,* and Figure 2, *Aerial Photograph of Project Vicinity*).

The Project is an SPA within the EOM SP. The SPA proposes: to re-designate 207.3 acres of Technology Business Park to Heavy Industrial uses (refer to Figure 3, *Project Components*); to re-designate 77.7 acres of Light Industrial to Mixed Industrial uses (refer to Figure 3); to re-designate 7.8 acres of Technology Business Park and 53.1 acres of Mixed Use – Employment Emphasis to Mixed Use – Residential Emphasis; the removal of David Ridge Road, from Vann Center Boulevard to Alta Road which would result in an additional 2.5 acres of developable land which will be subject to Heavy Industrial Land Use designation and an additional 2.5 acres of developable land which will be subject to Technology Business Park Land Use designation; changes to the Mixed Use – Residential Emphasis designation to allow for additional flexibility; changes to allowable uses within the Land Use Matrix, including the addition of new allowable uses, changing certain regulatory processes, and removing interim uses as a regulatory process; changes to design regulations for certain uses, including removal of height restrictions, increasing floor area ratio and coverage (refer to Figure 3), reducing parking requirements, reducing lot sizes, and revised landscape requirements. As part of the proposed SPA, text, tables and figures will be updated to reflect current conditions in East Otay Mesa, as well as changes to the overall vision for the area. The Project proposes changes which would affect the entire EOM SP. The Project consists of approximately 3,013 acres and is located in the southwestern portion of San Diego County, immediately adjacent to the U.S./Mexico border. The Project is subject to the County's General Plan Regional Category Village and General Plan Land Use Designation Specific Plan Area. The Project area is assigned S-88 zoning, and is governed by the EOM SP.

2.0 ENVIRONMENTAL SETTING

2.1 CLIMATE CHANGE OVERVIEW

Global climate change refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting light in but preventing heat from escaping, thus warming the Earth's atmosphere. These gases allow solar radiation (sunlight) into the Earth's atmosphere but prevent radiative heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

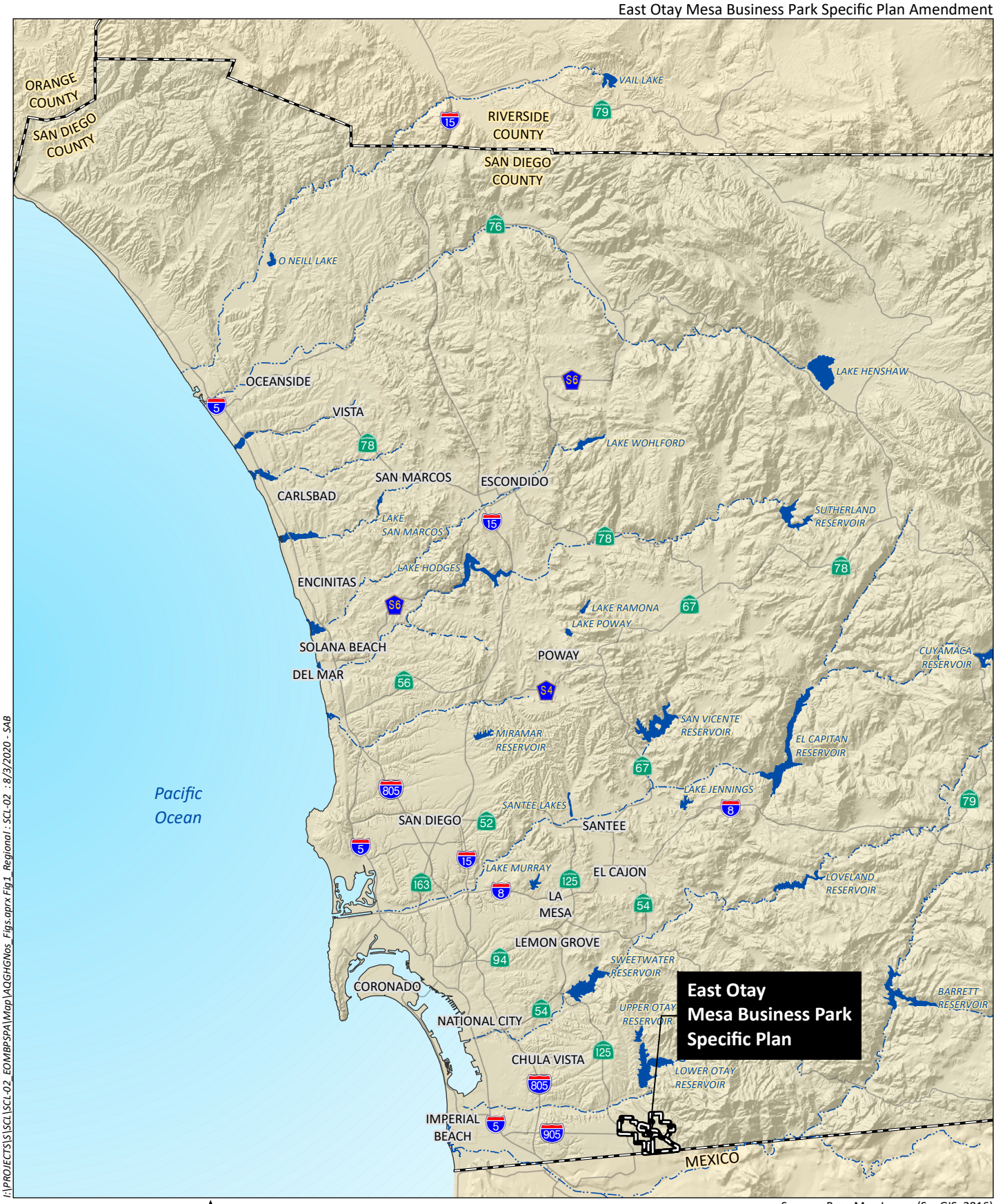
The temperature record shows a decades-long trend of warming, with 2016 global surface temperatures ranking as the warmest year on record since 1880. The newest release in long-term warming trends announced 2017 ranked as the second warmest year with an increase of 1.62 degrees Fahrenheit compared to the 1951-1980 average (National Aeronautics and Space Administration [NASA] 2018). GHG emissions from human activities are the most significant driver of observed climate change since the mid-20th century (United Nations Intergovernmental Panel on Climate Change [IPCC] 2013). The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The statistical models show a "high confidence" that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations are stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (CO_2e) by the year 2100 (IPCC 2014).

2.2 GREENHOUSE GASES

The GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Although water vapor is the most abundant and variable GHG in the atmosphere, it is not considered a pollutant; it maintains a climate necessary for life.

Carbon Dioxide. CO_2 is the most important and common anthropogenic GHG. CO_2 is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO_2 include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO_2 concentration in 2010 was 390 ppm, 39 percent above the concentration at the start of the Industrial Revolution (approximately 280 ppm in 1750). In August 2020, the CO_2 concentration was 412 ppm, a 47 percent increase since 1750 (National Oceanic and Atmospheric Administration [NOAA] 2020).

Methane. CH_4 is a gas and is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain



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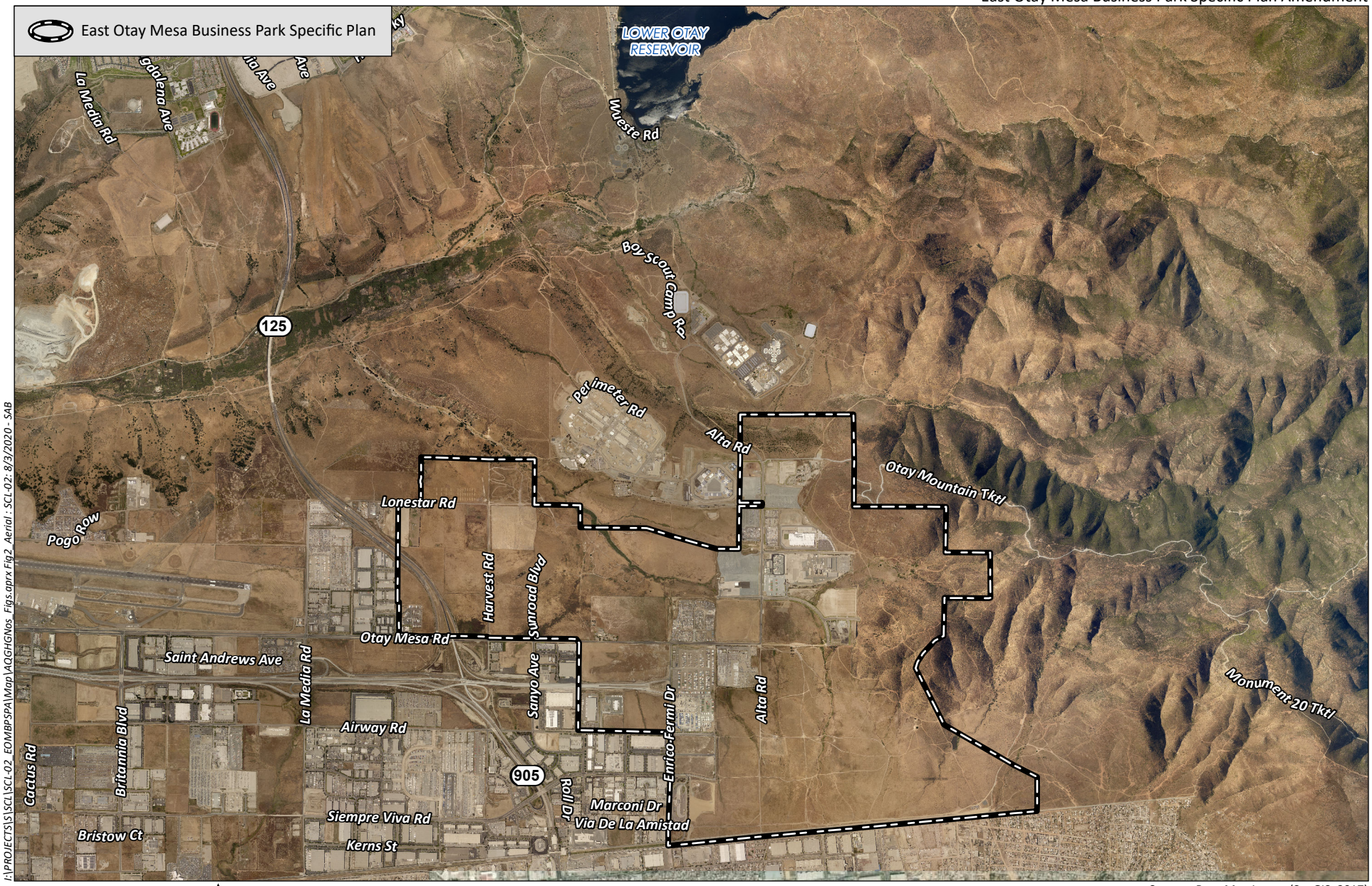
Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



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Source: Base Map Layers (SanGIS, 2017)

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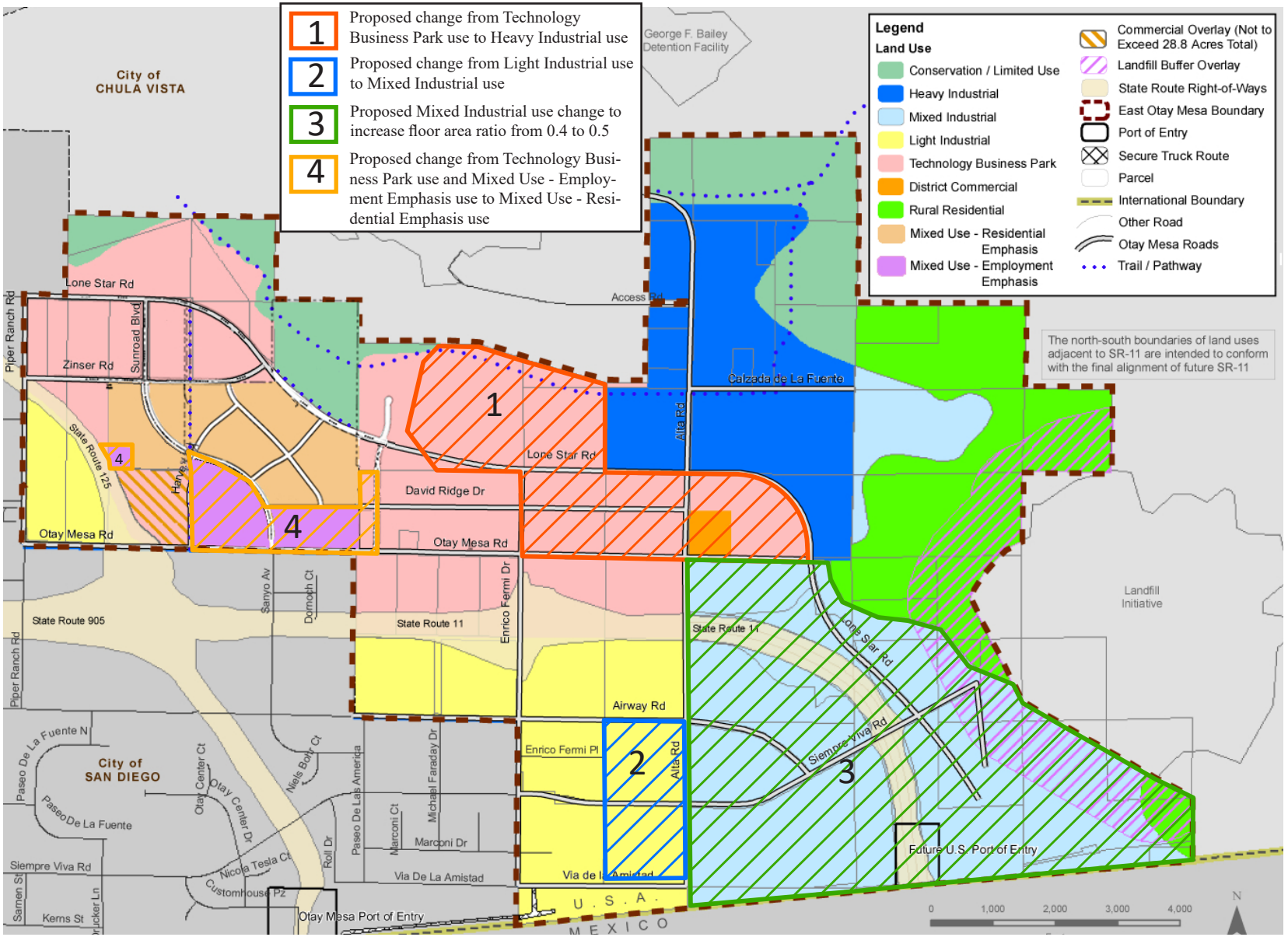
Aerial Photograph of Project Vicinity

Figure 2



Source: County of San Diego (2018)

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Project Components

Figure 3

methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

Nitrous Oxide. N_2O is produced by both natural and human-related sources. N_2O is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

Fluorocarbons. Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol.

Sulfur Hexafluoride. SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHGs to disperse around the globe. Because GHGs vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO_2. For example, because methane and N_2O are approximately 25 and 298 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO_2 has a GWP of 1). CO_2e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO_2e. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 1, *Global Warming Potentials and Atmospheric Lifetimes*. As shown in the table, the GWP for common GHGs ranges from 1 (CO_2) to 22,800 (SF_6).

Table 1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous Oxide (N_2O)	114	298
HFC-134a	14	1,430
PFC: Tetraflouromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: IPCC 2007
HFC: hydrofluorocarbon; PFC: perfluorocarbon

2.3 REGULATORY FRAMEWORK

2.3.1 Federal

2.3.1.1 Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* (USEPA*)* that CO_2 is an air pollutant, as defined under the Clean Air Act (CAA), and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO_2, CH_4, N_2O, HFC, PFC, and SF_6) threaten the public health and welfare of the American people.

2.3.1.2 Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) worked together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. On August 2, 2018, the agencies released a notice of proposed rulemaking—the Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The purpose of the SAFE Vehicles Rule is "to correct the national automobile fuel economy and GHG emissions standards to give the American people greater access to safer, more affordable vehicles that are cleaner for the environment." The direct effect of the rule is to eliminate the standards that were put in place to gradually raise average fuel economy for passenger cars and light trucks under test conditions from 37 miles per gallon in 2020 to 50 miles per gallon in 2025. By contrast, the new SAFE Vehicles Rule freezes the average fuel economy level standards indefinitely at the 2020 levels. The new SAFE Vehicles Rule also results in the withdrawal of the waiver previously provided to California for that State's GHG and zero emissions vehicle (ZEV) programs under section 209 of the CAA. The SAFE Vehicles Rule Part I, which withdraws the waiver, was published in September 2019 and Part II, which finalizes the regulation, was published in April 2020.

2.3.2 State

2.3.2.1 California Renewable Portfolio Standard

California's Renewable Portfolio Standard (RPS) is one of the state's key programs for advancing renewable energy. The RPS program sets continuously escalating renewable energy procurement requirements for the state's load-serving entities. The program was established in 2002 by SB 1078 with the initial requirement that 20 percent of electricity retail sales must be served by renewable resources by 2017. In 2015, SB 350 mandated a 50 percent RPS by 2030. SB 100, passed in 2018, furthered the RPS mandate to 60 percent by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

2.3.2.2 California Code of Regulations, Title 24, Part 6

California Code of Regulations (CCR) Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative

mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2019 and went into effect on January 1, 2020. The Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting. The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards–the energy budgets–that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

2.3.2.3 California Green Building Standards Code

The California Green Building Standards Code (CALGreen; CCR Title 24, Part 11) is a code with both mandatory and voluntary measures for new residential and nonresidential buildings (including industrial buildings) throughout California. The code is Part 11 of the California Building Standards Code in Title 24 of the CCR. The current 2019 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2020.

The mandatory measures apply statewide and the voluntary measures can be adopted by local jurisdictions. The voluntary measures are organized into two tiers with their own respective prerequisites. Tier 1 prerequisites set a higher standard than the mandatory measures and Tier 2 prerequisites include all Tier 1 prerequisites plus some enhanced or additional measures.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

CALGreen contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

2.3.2.4 Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. EOs are

not laws and can only provide the governor's direction to state agencies to act within their authority. Legislation is required to enact the goals of EO S-3-05 and establish a framework for statewide implementation. AB 32, described below, mandates the 2020 GHG reduction goals of EO S-3-05. The 2050 GHG reduction goal of EO S-3-05 has not been enacted by any legislation and remains only a goal of the EO.

2.3.2.5 Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32 and Health and Safety Code Sections 38500, 38501, 28510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599), widely known as AB 32, requires that the California Air Resources Board (CARB) develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. AB 32 enacts the goals of EO S-3-05.

2.3.2.6 Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28-nation European Union. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050. SB 32, described below, mandates the 2030 GHG reduction goals of EO B-30-15.

2.3.2.7 Senate Bill 32

SB 32 (Amendments to the California Global Warming Solutions Action of 2006) extends California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EO B-30-15 of 80 percent below 1990 emissions levels by 2050.

2.3.2.8 Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013). In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. However, as described previously, the adoption of the new SAFE Vehicles Rule results in the withdrawal of the waiver previously provided to California for that State's

GHG and zero emissions vehicle (ZEV) programs, freezing the average fuel economy level standards indefinitely at the 2020 levels.

2.3.2.9 Assembly Bill 341

The state legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The final regulation was approved by the Office of Administrative Law on May 7, 2012 and went into effect on July 1, 2012.

2.3.2.10 Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs the CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit Court of Appeals reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB, therefore, is continuing to implement the LCFS statewide.

2.3.2.11 Senate Bill (SB) 375

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline California Environmental Quality Act (CEQA) processing.

2.3.2.12 California Air Resources Board Scoping Plan

In December 2008, CARB adopted its first version of its Climate Change Scoping Plan (Scoping Plan), which contained the main strategies California will implement to achieve the mandate of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team early actions and additional GHG reduction measures by both entities, identifies additional measures to be pursued as regulations, and outlines the role of a cap-and-trade program.

On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan (2017 Scoping Plan), which lays out the framework for achieving the mandate of SB 32 (2016) to reduce statewide GHG emissions to at least 40 percent below 1990 levels by the end of 2030 (CARB 2017).

The 2017 Scoping Plan includes guidance to local governments in Chapter 5, including plan-level GHG emissions reduction goals and methods to reduce communitywide GHG emissions. In its guidance, CARB recommends that "local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives

and develop plans to achieve the local goals." CARB further states that "it is appropriate for local jurisdictions to derive evidence-based local per capita goals [or some other metric] that the local jurisdiction deems appropriate, such as mass emissions or per service population, based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets" (CARB 2017).

2.3.3 Local

2.3.3.1 San Diego Association of Governments San Diego Forward: The Regional Plan

San Diego Association of Governments' (SANDAG's) San Diego Forward: The Regional Plan (Regional Plan; SANDAG 2015) is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The underlying purpose is to provide direction and guidance on future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the region as stipulated under SB 375. The Regional Plan establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The Regional Plan encourages local jurisdictions including the County of San Diego to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. The focus is on implementation of basic smart growth principles designed to strengthen the integration of land use and transportation. General urban form goals, policies, and objectives are summarized as follows:

- Mix compatible uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Preserve open space, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost-effective.
- Encourage community and stakeholder collaboration in development decisions.

The Regional Plan also addresses border issues, providing an important guideline for communities that have borders with Mexico. In this case, the goal is to create a regional community where San Diego, its neighboring counties, tribal governments, and northern Baja California mutually benefit from San Diego's varied resources and international location.

2.3.3.2 San Diego Association of Governments Climate Action Strategy

The SANDAG Climate Action Strategy serves as a guide to help policymakers address climate change as they make decisions to meet the needs of growing populations, as well as to maintain and enhance quality of life and promote economic stability (SANDAG 2010). The purpose of the strategy is to identify land use, transportation, and other related policy measures that could reduce GHG emissions from passenger cars and light-duty trucks as part of the development of the SCS for the 2050 RTP in compliance with SB 375. Additional policy measures are identified for buildings and energy use, protecting transportation and energy infrastructures from climate impacts, and assisting SANDAG and other local agencies in reducing GHG emissions from their operations.

2.3.3.3 County of San Diego General Plan

The County's General Plan, adopted in 2011, provides guiding principles designed to balance future growth, conservation, and sustainability. The General Plan aims to balance the need for infrastructure, housing and economic vitality, while maintaining and preserving unique community, agricultural areas, and extensive open space (County 2011). The Conservation and Open Space Element of the General Plan contains goals and policies specific to reducing GHG emissions, including efficient and compact growth and development; increasing energy efficiency and use of renewable energy sources; increasing recycling; and improving access to sustainable transportation (County 2011).

2.3.3.4 County of San Diego Climate Action Plan

In February 2018, the County adopted a long-term programmatic Climate Action Plan (CAP) that outlines the actions the County would undertake to achieve its proportional share of state GHG emission reductions to be compliant with AB 32 and EO S-3-05.

After hearing petitions challenging the CAP, the San Diego County Superior Court ruled on December 24, 2018–which the Appellate Court affirmed on June 12, 2020–that the CAP failed to adequately account for potential environmental impacts for General Plan Amendment projects, and the County is required to set aside and vacate the CAP, the certification of its associated Supplemental EIR, and related actions. As a result, on September 30, 2020, the County Board of Supervisors rescinded and vacated the CAP and associated actions. Pending adoption of a new CAP, the County would continue to implement the 26 GHG reduction measures and sustainability initiatives and programs identified in the 2018 CAP to reduce GHG emissions to meet the State's 2030 reduction target. Since the CAP has been formally rescinded, it is not discussed further in this report.

The CAP included a checklist that was previously used to make GHG impact determinations for projects. With the CAP being rescinded, the associated checklist is no longer used. Projects now must identify project-specific GHG thresholds for determining significance.

3.0 SIGNIFICANCE CRITERIA AND ANALYSIS METHODOLOGIES

3.1 SIGNIFICANCE CRITERIA

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual development projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. Thus, the potential for a significant GHG impact is limited to cumulative impacts.

According to Appendix G of the State CEQA Guidelines, a project would have a significant air quality environmental impact if it would:

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

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

3.2 ANALYSIS METHODOLOGIES

As discussed above in Section 1.1, this report evaluates the GHG emissions impacts from the Project compared to what is considered in the EIR for the EOM SP, as amended, and assesses whether the changes proposed under the Project would result in a significant change in the impact determination. Portions of this analysis rely on the Otay 250 Sunroad–East Otay Mesa Business Park Specific Plan Amendment EIR (SCH No. 2016031028; County 2018) that was conducted for the entire EOM SP, which includes the Project site.

3.2.1 Emissions Modeling

Operational GHG emissions were calculated for both the existing land uses included in the EOM SP and for the proposed land uses under the EOM SPA using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. The emission sources include mobile (on-road vehicles), area (landscape maintenance equipment, consumer products), energy (electricity and natural gas), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of total metric tons (MT) of CO_2e. Table 2, *Land Uses Included in Model,* shows the land uses that were modeled under each scenario to compare GHG emissions.

Table 2
LAND USES INCLUDED IN MODEL

Land Use	Size
Existing Land Use under EOM SP	
Research and Development	4,946,238 square feet
General Light Industry	1,742,400 square feet
Mixed Use – Commercial/Retail	1,1546,518 square feet
Mixed Use – Residential	1,062 dwelling units
Proposed Land Use under EOM SPA	
General Heavy Industry	3,924,756 square feet
Industrial Park	1,952,185 square feet
Mixed Use – Commercial/Retail	256,280 square feet
Mixed Use – Residential	2,192 dwelling units

CalEEMod default motor vehicle emission rates are based on CARB's EMFAC state-wide emission factors for the County region which are incorporated into CalEEMod. The SAFE Vehicles Rule adjustment factors, which have been developed by CARB to account for anticipated increased emissions, were applied to the emission factors in the model. Default vehicle speeds, trip lengths, trip purpose, and trip type percentages were used. Trip generation for the existing land uses and land uses proposed under the Project was based on the transportation analysis prepared for the Project (Darnell and Associates, Inc. 2020). The transportation analysis did not include trip generation rates for the mixed use land uses, which are therefore based on CalEEMod defaults. Model output data sheets are included in Appendix A.

4.0 PROJECT IMPACT ANALYSIS

This section evaluates potential impacts of the Project related to the generation of GHG emissions.

4.1 GHG EMISSIONS

4.1.1 Construction Emissions

Construction of land uses within the Project area and associated emissions would occur regardless of whether the proposed Project would occur. The scope of Project construction is anticipated to be similar to that for development of the amended portion of the EOM SP in SPA-15-001, which was evaluated in the EIR. The EIR analysis assumed a 10-year building construction scenario for the development of 3,158 dwelling units, 78,000 SF of general commercial uses, 765,000 SF of employment uses on a total of 253 acres, with the most intensive construction years including the simultaneous operation of 30 pieces of heavy off-road equipment . The total construction emissions were estimated in the EIR to be 17,485 MT CO_2e. In the EIR, construction emissions were amortized over 20 years per recommendation by the SCAQMD for the purposes of evaluating construction-related GHGs under CEQA. Amortized over 20 years, construction would contribute 874 MT CO_2e per year. These emissions were added to the operational GHG emissions, below.

4.1.2 Operational Emissions

Operational sources of GHG emissions include: (1) energy use (electricity and natural gas); (2) area sources (landscaping equipment and consumer products); (3) vehicle use; (4) solid waste generation;

and (5) water conveyance and treatment. Operational emissions were modeled for both the existing land uses included in the EOM SP and the proposed land uses under the EOM SPA to determine net emissions associated with implementation of the Project.

4.1.2.1 Area Sources

Area sources include GHG emissions that would occur from the use of landscaping equipment and consumer products. Area source emissions were calculated using CalEEMod default values and were estimated to be 13 MT CO_2e for the existing land uses included in the EOM SP and 27 MT CO_2e for the proposed land uses under the EOM SPA.

4.1.2.2 Energy Use

Projects that increase electricity consumption also result in an indirect increase in GHG emissions. The generation of non-renewable electricity through the combustion of fossil fuels typically yields CO_2, and to a much smaller extent, methane and nitrous oxide. The annual GHG emissions from energy usage are estimated to be 29,851 MT CO_2e per year for the existing land uses included in the EOM SP and 30,280 MT CO_2e for the proposed land uses under the EOM SPA.

4.1.2.3 Vehicular (Mobile) Sources

Trip generation for the existing land uses and land uses proposed under the Project was based on the transportation analysis prepared for the Project (Darnell and Associates, Inc. 2020) and model defaults for the mixed use land uses. The annual GHG emissions from vehicular sources are estimated to be 61,560 MT CO_2e per year for the existing land uses included in the EOM SP and 50,454 MT CO_2e for the proposed land uses under the EOM SPA.

4.1.2.4 Solid Waste Sources

Solid waste generation contributes to GHG emissions as the treatment and disposal of solid waste produces significant amounts of methane. The annual GHG emissions from solid waste sources are estimated to be 2,132 MT CO_2e per year for the existing land uses included in the EOM SP and 4,312 MT CO_2e for the proposed land uses under the EOM SPA.

4.1.2.5 Water Sources

Water-related GHG emissions are from the conveyance and treatment of water. The California Energy Commission's (CEC) 2006 Refining Estimates of Water-Related Energy Use in California defines average energy values for water in Southern California. These values are used in CalEEMod to establish default water-related emission factors. The annual GHG emissions from water sources are estimated to be 17,187 MT CO_2e per year for the existing land uses included in the EOM SP and 8,940 MT CO_2e for the proposed land uses under the EOM SPA.

4.1.2.6 Comparison of Total GHG Emissions

As shown in Table 3, *Estimated Project Annual Greenhouse Gas Emissions*, with amortized construction emissions total annual GHG emissions are estimated to be 111,617 MT CO_2e per year for the existing land uses included in the EOM SP and 94,887 MT CO_2e for the proposed land uses under the EOM SPA, resulting in a net decrease in total annual GHG emissions of 16,730 MT CO_2e per year. The Project would

result in a reduction in GHG emissions compared to the existing land uses included in the EOM SP and would therefore not result in a new impact or increase the severity of the impact assessed in the EIR. The Project would also incorporate all applicable mitigation measures included in the previous EIR related to GHG emissions. Refer to Appendix A for a full breakdown of generated emissions.

Table 3
ESTIMATED PROJECT ANNUAL GREENHOUSE GAS EMISSIONS

Emission Sources	Emissions of CO_2e (MT/year)
Existing Land Use under EOM SP	
Area Sources	13
Energy Sources	29,851
Vehicular (Mobile) Sources	61,560
Solid Waste Sources	2,132
Water Sources	17,187
Operational Subtotal	***110,743***
Amortized Construction	874
TOTAL	**111,617**
Proposed Land Use under EOM SPA	
Area Sources	27
Energy Sources	30,280
Vehicular (Mobile) Sources	50,454
Solid Waste Sources	4,312
Water Sources	8,940
Operational Subtotal	***94,013***
Amortized Construction	874
TOTAL	**94,887**
SPA NET EMISSIONS	***-16,730***

Source: CalEEMod output data is provided in Appendix A
Note: Values rounded to the nearest whole number.

4.2 CONSISTENCY WITH LOCAL PLANS ADOPTED FOR THE PURPOSE OF REDUCING GHG EMISSIONS

There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall State plan and policy is AB 32 and SB 32, the California Global Warming Solutions Act of 2006. The quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. SB 32 requires further reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. Statewide plans are regulations are being implemented at the statewide level, and compliance on a project-specific level is not addressed.

On a local level, the Project would be consistent with SANDAG's Regional Plan. The Regional Plan, which was developed in 2015, takes into account development forecasted by local general plans. Development of the Project site as part of the Otay Regional Plan, which was developed in 2011, has been anticipated in the Regional Plan. In addition, the Project would be consistent with the goals, policies, and objectives of the Regional Plan. The Project is part of the planned and approved EOM SP, which contains a mix of residential, commercial, business park, industrial, and recreational uses, all of which, when viewed from an integrated perspective, reduce the amount of VMT and corresponding GHG emissions as compared

to a non-mixed-use type of development. Further, as shown above in Section 4.1, the Project would result in a reduction in GHG emissions compared to the existing land uses included in the EOM SP and would therefore not result in a new impact or increase the severity of the impact assessed in the EIR as related to conflict with plans adopted for the purpose of reducing GHG emissions.

5.0 CUMULATIVE IMPACTS

Given the relatively small levels of emissions generated by a typical development in relationship to the total amount of GHG emissions generated on a national or global basis, individual projects are not expected to result in significant, direct impacts with respect to climate change. Rather, a project's GHG emissions impacts are cumulative by nature. As such, the preceding analysis assesses cumulative impacts associated with GHG emission.

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7.0 LIST OF PREPARERS

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Appendix A

CalEEMod Output

SCL02 - EOM SPA (Existing)

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	4,946.24	1000sqft	227.10	4,946,240.00	0
General Light Industry	1,742.40	1000sqft	80.00	1,742,400.00	0
Condo/Townhouse	1,062.00	Dwelling Unit	26.55	1,062,000.00	3037
Strip Mall	1,156.52	1000sqft	26.55	1,156,520.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 227.1 ac Tech Business Park at 0.5 FAR
80 ac Light Industrial at 0.5 FAR
53.1 ac Mixed Use - Employment Emphasis (half retail at 1.0 FAR and half residential at 40 du/ac)

Construction Phase - Construction consistent with EOM Specific Plan

Vehicle Trips - Darnell & Associates, Inc. 2020

Woodstoves - No hearth

SCL02 - EOM SPA (Existing) - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
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tblFireplaces	NumberWood	371.70	0.00
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tblVehicleEF	MDV	72.70	82.55
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	1.1030e-003	1.1430e-003
tblVehicleEF	MDV	1.5850e-003	1.6420e-003
tblVehicleEF	MDV	1.0160e-003	1.0530e-003
tblVehicleEF	MDV	1.4570e-003	1.5100e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.47	0.48
tblVehicleEF	MDV	0.99	1.02
tblVehicleEF	MDV	340.39	386.52
tblVehicleEF	MDV	72.70	82.55

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	1.1030e-003	1.1430e-003
tblVehicleEF	MDV	1.5850e-003	1.6420e-003
tblVehicleEF	MDV	1.0160e-003	1.0530e-003
tblVehicleEF	MDV	1.4570e-003	1.5100e-003
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleTrips	ST_TR	1.32	5.51
tblVehicleTrips	ST_TR	1.90	5.51
tblVehicleTrips	SU_TR	0.68	5.51
tblVehicleTrips	SU_TR	1.11	5.51
tblVehicleTrips	WD_TR	6.97	5.51
tblVehicleTrips	WD_TR	8.11	5.51
tblWoodstoves	NumberCatalytic	53.10	0.00
tblWoodstoves	NumberNoncatalytic	53.10	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	45.7803	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365
Energy	0.5132	4.6205	3.5895	0.0280		0.3546	0.3546		0.3546	0.3546	0.0000	29,734.3841	29,734.3841	1.0897	0.2984	29,850.5613
Mobile	12.9429	62.8269	147.5854	0.6039	69.9744	0.3228	70.2972	18.7313	0.2998	19.0312	0.0000	61,489.9164	61,489.9164	2.8080	0.0000	61,560.1152
Waste						0.0000	0.0000		0.0000	0.0000	860.5457	0.0000	860.5457	50.8568	0.0000	2,131.9655
Water						0.0000	0.0000		0.0000	0.0000	948.5339	13,071.8606	14,020.3945	97.9497	2.4092	17,187.0895
Total	**59.2364**	**67.5387**	**159.1043**	**0.6323**	**69.9744**	**0.7214**	**70.6957**	**18.7313**	**0.6984**	**19.4297**	**1,809.0796**	**104,309.1820**	**106,118.2616**	**152.7168**	**2.7077**	**110,743.0681**

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	45.7803	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365
Energy	0.5132	4.6205	3.5895	0.0280		0.3546	0.3546		0.3546	0.3546	0.0000	29,734.3841	29,734.3841	1.0897	0.2984	29,850.5613
Mobile	12.9429	62.8269	147.5854	0.6039	69.9744	0.3228	70.2972	18.7313	0.2998	19.0312	0.0000	61,489.9164	61,489.9164	2.8080	0.0000	61,560.1152
Waste						0.0000	0.0000		0.0000	0.0000	860.5457	0.0000	860.5457	50.8568	0.0000	2,131.9655
Water						0.0000	0.0000		0.0000	0.0000	948.5339	13,071.8606	14,020.3945	97.9497	2.4092	17,187.0895
Total	**59.2364**	**67.5387**	**159.1043**	**0.6323**	**69.9744**	**0.7214**	**70.6957**	**18.7313**	**0.6984**	**19.4297**	**1,809.0796**	**104,309.1820**	**106,118.2616**	**152.7168**	**2.7077**	**110,743.0681**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	2/3/2051	2/2/2051	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 2,150,550; Residential Outdoor: 716,850; Non-Residential Indoor: 11,767,740; Non-Residential Outdoor: 3,922,580; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Architectural Coating	1	690.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2051

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2051

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.9429	62.8269	147.5854	0.6039	69.9744	0.3228	70.2972	18.7313	0.2998	19.0312	0.0000	61,489.9164	61,489.9164	2.8080	0.0000	61,560.1152
Unmitigated	12.9429	62.8269	147.5854	0.6039	69.9744	0.3228	70.2972	18.7313	0.2998	19.0312	0.0000	61,489.9164	61,489.9164	2.8080	0.0000	61,560.1152

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	6,170.22	6,021.54	5140.08	17,137,009	17,137,009
General Light Industry	9,600.62	9,600.62	9600.62	28,029,129	28,029,129
Research & Development	27,253.78	27,253.78	27253.78	68,304,721	68,304,721
Strip Mall	51,256.97	48,620.10	23627.70	72,278,731	72,278,731
Total	94,281.59	91,496.05	65,622.19	185,749,589	185,749,589

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Research & Development	9.50	7.30	7.30	33.00	48.00	19.00	82	15	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
General Light Industry	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Research & Development	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Strip Mall	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,655.5207	24,655.5207	0.9924	0.2053	24,741.5168
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,655.5207	24,655.5207	0.9924	0.2053	24,741.5168
NaturalGas Mitigated	0.5132	4.6205	3.5895	0.0280		0.3546	0.3546		0.3546	0.3546	0.0000	5,078.8633	5,078.8633	0.0973	0.0931	5,109.0445
NaturalGas Unmitigated	0.5132	4.6205	3.5895	0.0280		0.3546	0.3546		0.3546	0.3546	0.0000	5,078.8633	5,078.8633	0.0973	0.0931	5,109.0445

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.52746e+007	0.0824	0.7038	0.2995	4.4900e-003		0.0569	0.0569		0.0569	0.0569	0.0000	815.1101	815.1101	0.0156	0.0149	819.9539
General Light Industry	2.01421e+007	0.1086	0.9874	0.8294	5.9200e-003		0.0750	0.0750		0.0750	0.0750	0.0000	1,074.8615	1,074.8615	0.0206	0.0197	1,081.2489
Research & Development	5.71785e+007	0.3083	2.8029	2.3544	0.0168		0.2130	0.2130		0.2130	0.2130	0.0000	3,051.2643	3,051.2643	0.0585	0.0559	3,069.3965
Strip Mall	2.57904e+006	0.0139	0.1264	0.1062	7.6000e-004		9.6100e-003	9.6100e-003		9.6100e-003	9.6100e-003	0.0000	137.6274	137.6274	2.6400e-003	2.5200e-003	138.4452
Total		**0.5132**	**4.6205**	**3.5895**	**0.0280**		**0.3546**	**0.3546**		**0.3546**	**0.3546**	**0.0000**	**5,078.8633**	**5,078.8633**	**0.0973**	**0.0931**	**5,109.0445**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	1.52746e+007	0.0824	0.7038	0.2995	4.4900e-003		0.0569	0.0569		0.0569	0.0569	0.0000	815.1101	815.1101	0.0156	0.0149	819.9539
General Light Industry	2.01421e+007	0.1086	0.9874	0.8294	5.9200e-003		0.0750	0.0750		0.0750	0.0750	0.0000	1,074.8615	1,074.8615	0.0206	0.0197	1,081.2489
Research & Development	5.71785e+007	0.3083	2.8029	2.3544	0.0168		0.2130	0.2130		0.2130	0.2130	0.0000	3,051.2643	3,051.2643	0.0585	0.0559	3,069.3965
Strip Mall	2.57904e+006	0.0139	0.1264	0.1062	7.6000e-004		9.6100e-003	9.6100e-003		9.6100e-003	9.6100e-003	0.0000	137.6274	137.6274	2.6400e-003	2.5200e-003	138.4452
Total		**0.5132**	**4.6205**	**3.5895**	**0.0280**		**0.3546**	**0.3546**		**0.3546**	**0.3546**	**0.0000**	**5,078.8633**	**5,078.8633**	**0.0973**	**0.0931**	**5,109.0445**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	5.33478e+006	1,743.4517	0.0702	0.0145	1,749.5327
General Light Industry	1.44793e+007	4,731.9766	0.1905	0.0394	4,748.4812
Research & Development	4.11033e+007	13,432.9039	0.5407	0.1119	13,479.7566
Strip Mall	1.45259e+007	4,747.1886	0.1911	0.0395	4,763.7463
Total		**24,655.5207**	**0.9924**	**0.2053**	**24,741.5168**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	5.33478e+006	1,743.4517	0.0702	0.0145	1,749.5327
General Light Industry	1.44793e+007	4,731.9766	0.1905	0.0394	4,748.4812
Research & Development	4.11033e+007	13,432.9039	0.5407	0.1119	13,479.7566
Strip Mall	1.45259e+007	4,747.1886	0.1911	0.0395	4,763.7463
Total		**24,655.5207**	**0.9924**	**0.2053**	**24,741.5168**

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	45.7803	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365
Unmitigated	45.7803	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365

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	10.7519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7869					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	0.2415	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365
Total	**45.7803**	**0.0913**	**7.9294**	**4.2000e-004**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**13.0210**	**13.0210**	**0.0126**	**0.0000**	**13.3365**

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	10.7519					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	34.7869					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	0.2415	0.0913	7.9294	4.2000e-004		0.0440	0.0440		0.0440	0.0440	0.0000	13.0210	13.0210	0.0126	0.0000	13.3365
Total	**45.7803**	**0.0913**	**7.9294**	**4.2000e-004**		**0.0440**	**0.0440**		**0.0440**	**0.0440**	**0.0000**	**13.0210**	**13.0210**	**0.0126**	**0.0000**	**13.3365**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14,020.3945	97.9497	2.4092	17,187.0895
Unmitigated	14,020.3945	97.9497	2.4092	17,187.0895

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	69.1936 / 43.622	474.7815	2.2729	0.0570	548.5927
General Light Industry	402.93 / 0	1,842.4501	13.1985	0.3243	2,269.0522
Research & Development	2432.04 / 0	11,120.8040	79.6645	1.9574	13,695.7218
Strip Mall	85.6664 / 52.5052	582.3588	2.8138	0.0705	673.7230
Total		**14,020.3945**	**97.9497**	**2.4092**	**17,187.0895**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	69.1936 / 43.622	474.7815	2.2729	0.0570	548.5927
General Light Industry	402.93 / 0	1,842.4501	13.1985	0.3243	2,269.0522
Research & Development	2432.04 / 0	11,120.8040	79.6645	1.9574	13,695.7218
Strip Mall	85.6664 / 52.5052	582.3588	2.8138	0.0705	673.7230
Total		**14,020.3945**	**97.9497**	**2.4092**	**17,187.0895**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	860.5457	50.8568	0.0000	2,131.9655
Unmitigated	860.5457	50.8568	0.0000	2,131.9655

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	488.52	99.1652	5.8605	0.0000	245.6775
General Light Industry	2160.58	438.5782	25.9192	0.0000	1,086.5590
Research & Development	375.88	76.3002	4.5092	0.0000	189.0306
Strip Mall	1214.35	246.5021	14.5679	0.0000	610.6985
Total		**860.5457**	**50.8568**	**0.0000**	**2,131.9655**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	488.52	99.1652	5.8605	0.0000	245.6775
General Light Industry	2160.58	438.5782	25.9192	0.0000	1,086.5590
Research & Development	375.88	76.3002	4.5092	0.0000	189.0306
Strip Mall	1214.35	246.5021	14.5679	0.0000	610.6985
Total		**860.5457**	**50.8568**	**0.0000**	**2,131.9655**

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

SCL02 - EOM SPA (Proposed)

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	3,924.76	1000sqft	180.20	3,924,760.00	0
Industrial Park	1,952.19	1000sqft	128.16	1,952,190.00	0
Condo/Townhouse	2,192.00	Dwelling Unit	54.81	2,192,000.00	6269
Strip Mall	265.28	1000sqft	6.09	265,280.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 180.2 ac Heavy Industrial Use at 0.5 FAR
80 ac Mixed Industrial Use at 0.5 FAR plus 48.16 ac increasing from 0.4 to 0.5 FAR
60.9 ac Mixed Use - Residential Emphasis (90% residential at 40 du/ac and 10% retail at 1.0 FAR)

Construction Phase - Construction consistent with EOM Specific Plan

Vehicle Trips - Darnell & Associates, Inc. 2020

Woodstoves - No hearth

SCL02 - EOM SPA (Proposed) - San Diego County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	440.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,205.60	0.00
tblFireplaces	NumberNoFireplace	219.20	2,192.00
tblFireplaces	NumberWood	767.20	0.00
tblLandUse	LotAcreage	90.10	180.20
tblLandUse	LotAcreage	44.82	128.16
tblLandUse	LotAcreage	137.00	54.81
tblVehicleEF	LDA	0.38	0.39
tblVehicleEF	LDA	0.86	0.89
tblVehicleEF	LDA	176.13	200.00
tblVehicleEF	LDA	37.33	42.39
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.8100e-004	9.1300e-004
tblVehicleEF	LDA	1.3020e-003	1.3490e-003
tblVehicleEF	LDA	8.1000e-004	8.3900e-004
tblVehicleEF	LDA	1.1970e-003	1.2400e-003
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.06	0.07
tblVehicleEF	LDA	0.42	0.43
tblVehicleEF	LDA	0.72	0.74

tblVehicleEF	LDA	186.15	211.37
tblVehicleEF	LDA	37.33	42.39
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	8.8100e-004	9.1300e-004
tblVehicleEF	LDA	1.3020e-003	1.3490e-003
tblVehicleEF	LDA	8.1000e-004	8.3900e-004
tblVehicleEF	LDA	1.1970e-003	1.2400e-003
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.02	0.03
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.37	0.38
tblVehicleEF	LDA	0.92	0.95
tblVehicleEF	LDA	174.32	197.94
tblVehicleEF	LDA	37.33	42.39
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	8.8100e-004	9.1300e-004
tblVehicleEF	LDA	1.3020e-003	1.3490e-003
tblVehicleEF	LDA	8.1000e-004	8.3900e-004
tblVehicleEF	LDA	1.1970e-003	1.2400e-003
tblVehicleEF	LDA	9.0950e-003	9.2580e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.01	0.01

tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDT1	0.42	0.44
tblVehicleEF	LDT1	0.85	0.88
tblVehicleEF	LDT1	232.82	264.37
tblVehicleEF	LDT1	50.56	57.41
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	1.1890e-003	1.2320e-003
tblVehicleEF	LDT1	1.7300e-003	1.7930e-003
tblVehicleEF	LDT1	1.0930e-003	1.1330e-003
tblVehicleEF	LDT1	1.5910e-003	1.6490e-003
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.11	0.11
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.47	0.49
tblVehicleEF	LDT1	0.71	0.73
tblVehicleEF	LDT1	245.72	279.02
tblVehicleEF	LDT1	50.56	57.41
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	1.1890e-003	1.2320e-003
tblVehicleEF	LDT1	1.7300e-003	1.7930e-003

tblVehicleEF	LDT1	1.0930e-003	1.1330e-003
tblVehicleEF	LDT1	1.5910e-003	1.6490e-003
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.11	0.11
tblVehicleEF	LDT1	0.08	0.08
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.41	0.43
tblVehicleEF	LDT1	0.91	0.94
tblVehicleEF	LDT1	230.49	261.72
tblVehicleEF	LDT1	50.56	57.41
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	1.1890e-003	1.2320e-003
tblVehicleEF	LDT1	1.7300e-003	1.7930e-003
tblVehicleEF	LDT1	1.0930e-003	1.1330e-003
tblVehicleEF	LDT1	1.5910e-003	1.6490e-003
tblVehicleEF	LDT1	0.03	0.03
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.04	0.04
tblVehicleEF	LDT1	0.01	0.01
tblVehicleEF	LDT1	0.10	0.10
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT2	0.40	0.41
tblVehicleEF	LDT2	0.63	0.65
tblVehicleEF	LDT2	258.14	293.12

tblVehicleEF	LDT2	54.97	62.42
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	1.0470e-003	1.0850e-003
tblVehicleEF	LDT2	1.5170e-003	1.5720e-003
tblVehicleEF	LDT2	9.6300e-004	9.9800e-004
tblVehicleEF	LDT2	1.3950e-003	1.4450e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	8.6520e-003	8.7130e-003
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.44	0.46
tblVehicleEF	LDT2	0.55	0.56
tblVehicleEF	LDT2	272.54	309.47
tblVehicleEF	LDT2	54.97	62.42
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	1.0470e-003	1.0850e-003
tblVehicleEF	LDT2	1.5170e-003	1.5720e-003
tblVehicleEF	LDT2	9.6300e-004	9.9800e-004
tblVehicleEF	LDT2	1.3950e-003	1.4450e-003
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	9.3190e-003	9.3840e-003

tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.40
tblVehicleEF	LDT2	0.67	0.68
tblVehicleEF	LDT2	255.54	290.16
tblVehicleEF	LDT2	54.97	62.42
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	1.0470e-003	1.0850e-003
tblVehicleEF	LDT2	1.5170e-003	1.5720e-003
tblVehicleEF	LDT2	9.6300e-004	9.9800e-004
tblVehicleEF	LDT2	1.3950e-003	1.4450e-003
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	8.5050e-003	8.5650e-003
tblVehicleEF	LDT2	0.05	0.05
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	MDV	0.48	0.49
tblVehicleEF	MDV	0.93	0.96
tblVehicleEF	MDV	343.76	390.34
tblVehicleEF	MDV	72.70	82.55
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	1.1030e-003	1.1430e-003
tblVehicleEF	MDV	1.5850e-003	1.6420e-003
tblVehicleEF	MDV	1.0160e-003	1.0530e-003

tblVehicleEF	MDV	1.4570e-003	1.5100e-003
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.54	0.55
tblVehicleEF	MDV	0.79	0.81
tblVehicleEF	MDV	362.37	411.47
tblVehicleEF	MDV	72.70	82.55
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	1.1030e-003	1.1430e-003
tblVehicleEF	MDV	1.5850e-003	1.6420e-003
tblVehicleEF	MDV	1.0160e-003	1.0530e-003
tblVehicleEF	MDV	1.4570e-003	1.5100e-003
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.47	0.48
tblVehicleEF	MDV	0.99	1.02
tblVehicleEF	MDV	340.39	386.52
tblVehicleEF	MDV	72.70	82.55

tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.06	0.06
tblVehicleEF	MDV	1.1030e-003	1.1430e-003
tblVehicleEF	MDV	1.5850e-003	1.6420e-003
tblVehicleEF	MDV	1.0160e-003	1.0530e-003
tblVehicleEF	MDV	1.4570e-003	1.5100e-003
tblVehicleEF	MDV	0.03	0.03
tblVehicleEF	MDV	0.10	0.10
tblVehicleEF	MDV	0.05	0.05
tblVehicleEF	MDV	0.01	0.01
tblVehicleEF	MDV	0.07	0.08
tblVehicleEF	MDV	0.06	0.06
tblVehicleTrips	ST_TR	1.50	5.51
tblVehicleTrips	ST_TR	2.49	7.78
tblVehicleTrips	SU_TR	1.50	5.51
tblVehicleTrips	SU_TR	0.73	7.78
tblVehicleTrips	WD_TR	1.50	5.51
tblVehicleTrips	WD_TR	6.83	7.78
tblWoodstoves	NumberCatalytic	109.60	0.00
tblWoodstoves	NumberNoncatalytic	109.60	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	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					
2051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2051	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	43.5857	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359
Energy	0.6304	5.6379	4.1337	0.0344		0.4355	0.4355		0.4355	0.4355	0.0000	30,159.2757	30,159.2757	1.0824	0.3136	30,279.7812
Mobile	9.5363	45.6928	116.5399	0.4948	58.3554	0.2604	58.6158	15.6211	0.2419	15.8630	0.0000	50,398.1308	50,398.1308	2.2421	0.0000	50,454.1832
Waste						0.0000	0.0000		0.0000	0.0000	1,740.5014	0.0000	1,740.5014	102.8607	0.0000	4,312.0184
Water						0.0000	0.0000		0.0000	0.0000	482.7057	6,845.2476	7,327.9532	49.8540	1.2277	8,940.1467
Total	**53.7523**	**51.5182**	**136.9483**	**0.5301**	**58.3554**	**0.7864**	**59.1418**	**15.6211**	**0.7679**	**16.3889**	**2,223.2070**	**87,429.3502**	**89,652.5572**	**156.0648**	**1.5412**	**94,013.4654**

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	43.5857	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359
Energy	0.6304	5.6379	4.1337	0.0344		0.4355	0.4355		0.4355	0.4355	0.0000	30,159.2757	30,159.2757	1.0824	0.3136	30,279.7812
Mobile	9.5363	45.6928	116.5399	0.4948	58.3554	0.2604	58.6158	15.6211	0.2419	15.8630	0.0000	50,398.1308	50,398.1308	2.2421	0.0000	50,454.1832
Waste						0.0000	0.0000		0.0000	0.0000	1,740.5014	0.0000	1,740.5014	102.8607	0.0000	4,312.0184
Water						0.0000	0.0000		0.0000	0.0000	482.7057	6,845.2476	7,327.9532	49.8540	1.2277	8,940.1467
Total	**53.7523**	**51.5182**	**136.9483**	**0.5301**	**58.3554**	**0.7864**	**59.1418**	**15.6211**	**0.7679**	**16.3889**	**2,223.2070**	**87,429.3502**	**89,652.5572**	**156.0648**	**1.5412**	**94,013.4654**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	2/3/2051	2/2/2051	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 4,438,800; Residential Outdoor: 1,479,600; Non-Residential Indoor: 9,213,345; Non-Residential Outdoor: 3,071,115; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48

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
Architectural Coating	1	826.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2051

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Architectural Coating - 2051

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.5363	45.6928	116.5399	0.4948	58.3554	0.2604	58.6158	15.6211	0.2419	15.8630	0.0000	50,398.1308	50,398.1308	2.2421	0.0000	50,454.1832
Unmitigated	9.5363	45.6928	116.5399	0.4948	58.3554	0.2604	58.6158	15.6211	0.2419	15.8630	0.0000	50,398.1308	50,398.1308	2.2421	0.0000	50,454.1832

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	12,735.52	12,428.64	10609.28	35,371,302	35,371,302
General Heavy Industry	21,625.43	21,625.43	21625.43	63,135,677	63,135,677
Industrial Park	15,188.04	15,188.04	15188.04	39,820,428	39,820,428
Strip Mall	11,757.21	11,152.37	5419.67	16,579,135	16,579,135
Total	61,306.20	60,394.48	52,842.42	154,906,543	154,906,543

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
General Heavy Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Industrial Park	9.50	7.30	7.30	59.00	28.00	13.00	79	19	2
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
General Heavy Industry	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Industrial Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Strip Mall	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23,920.8479	23,920.8479	0.9628	0.1992	24,004.2815
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23,920.8479	23,920.8479	0.9628	0.1992	24,004.2815
NaturalGas Mitigated	0.6304	5.6379	4.1337	0.0344		0.4355	0.4355		0.4355	0.4355	0.0000	6,238.4279	6,238.4279	0.1196	0.1144	6,275.4997
NaturalGas Unmitigated	0.6304	5.6379	4.1337	0.0344		0.4355	0.4355		0.4355	0.4355	0.0000	6,238.4279	6,238.4279	0.1196	0.1144	6,275.4997

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	3.15272e+007	0.1700	1.4527	0.6182	9.2700e-003		0.1175	0.1175		0.1175	0.1175	0.0000	1,682.4118	1,682.4118	0.0323	0.0308	1,692.4096
General Heavy Industry	4.53702e+007	0.2446	2.2240	1.8682	0.0133		0.1690	0.1690		0.1690	0.1690	0.0000	2,421.1280	2,421.1280	0.0464	0.0444	2,435.5156
Industrial Park	3.94147e+007	0.2125	1.9321	1.6230	0.0116		0.1468	0.1468		0.1468	0.1468	0.0000	2,103.3194	2,103.3194	0.0403	0.0386	2,115.8183
Strip Mall	591574	3.1900e-003	0.0290	0.0244	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.5687	31.5687	6.1000e-004	5.8000e-004	31.7563
Total		**0.6304**	**5.6378**	**4.1337**	**0.0344**		**0.4355**	**0.4355**		**0.4355**	**0.4355**	**0.0000**	**6,238.4279**	**6,238.4279**	**0.1196**	**0.1144**	**6,275.4997**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	3.15272e+007	0.1700	1.4527	0.6182	9.2700e-003		0.1175	0.1175		0.1175	0.1175	0.0000	1,682.4118	1,682.4118	0.0323	0.0308	1,692.4096
General Heavy Industry	4.53702e+007	0.2446	2.2240	1.8682	0.0133		0.1690	0.1690		0.1690	0.1690	0.0000	2,421.1280	2,421.1280	0.0464	0.0444	2,435.5156
Industrial Park	3.94147e+007	0.2125	1.9321	1.6230	0.0116		0.1468	0.1468		0.1468	0.1468	0.0000	2,103.3194	2,103.3194	0.0403	0.0386	2,115.8183
Strip Mall	591574	3.1900e-003	0.0290	0.0244	1.7000e-004		2.2000e-003	2.2000e-003		2.2000e-003	2.2000e-003	0.0000	31.5687	31.5687	6.1000e-004	5.8000e-004	31.7563
Total		**0.6304**	**5.6378**	**4.1337**	**0.0344**		**0.4355**	**0.4355**		**0.4355**	**0.4355**	**0.0000**	**6,238.4279**	**6,238.4279**	**0.1196**	**0.1144**	**6,275.4997**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.10111e+007	3,598.5369	0.1448	0.0300	3,611.0882
General Heavy Industry	3.26148e+007	10,658.7881	0.4290	0.0888	10,695.9649
Industrial Park	2.62374e+007	8,574.6233	0.3451	0.0714	8,604.5308
Strip Mall	3.33192e+006	1,088.8996	0.0438	9.0700e-003	1,092.6976
Total		**23,920.8479**	**0.9628**	**0.1992**	**24,004.2815**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	1.10111e+007	3,598.5369	0.1448	0.0300	3,611.0882
General Heavy Industry	3.26148e+007	10,658.7881	0.4290	0.0888	10,695.9649
Industrial Park	2.62374e+007	8,574.6233	0.3451	0.0714	8,604.5308
Strip Mall	3.33192e+006	1,088.8996	0.0438	9.0700e-003	1,092.6976
Total		**23,920.8479**	**0.9628**	**0.1992**	**24,004.2815**

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	43.5857	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359
Unmitigated	43.5857	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359

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	10.5463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	32.5493					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	0.4901	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359
Total	**43.5857**	**0.1876**	**16.2748**	**8.6000e-004**		**0.0905**	**0.0905**		**0.0905**	**0.0905**	**0.0000**	**26.6961**	**26.6961**	**0.0256**	**0.0000**	**27.3359**

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	10.5463					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	32.5493					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	0.4901	0.1876	16.2748	8.6000e-004		0.0905	0.0905		0.0905	0.0905	0.0000	26.6961	26.6961	0.0256	0.0000	27.3359
Total	**43.5857**	**0.1876**	**16.2748**	**8.6000e-004**		**0.0905**	**0.0905**		**0.0905**	**0.0905**	**0.0000**	**26.6961**	**26.6961**	**0.0256**	**0.0000**	**27.3359**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7,327.9532	49.8540	1.2277	8,940.1467
Unmitigated	7,327.9532	49.8540	1.2277	8,940.1467

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	142.818 / 90.0372	979.9634	4.6913	0.1177	1,132.3118
General Heavy Industry	907.601 / 0	4,150.1232	29.7296	0.7305	5,111.0452
Industrial Park	451.444 / 0	2,064.2865	14.7876	0.3633	2,542.2526
Strip Mall	19.65 / 12.0435	133.5802	0.6454	0.0162	154.5371
Total		**7,327.9532**	**49.8540**	**1.2277**	**8,940.1467**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	142.818 / 90.0372	979.9634	4.6913	0.1177	1,132.3118
General Heavy Industry	907.601 / 0	4,150.1232	29.7296	0.7305	5,111.0452
Industrial Park	451.444 / 0	2,064.2865	14.7876	0.3633	2,542.2526
Strip Mall	19.65 / 12.0435	133.5802	0.6454	0.0162	154.5371
Total		**7,327.9532**	**49.8540**	**1.2277**	**8,940.1467**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,740.5014	102.8607	0.0000	4,312.0184
Unmitigated	1,740.5014	102.8607	0.0000	4,312.0184

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	1008.32	204.6799	12.0962	0.0000	507.0857
General Heavy Industry	4866.7	987.8961	58.3830	0.0000	2,447.4708
Industrial Park	2420.72	491.3843	29.0400	0.0000	1,217.3838
Strip Mall	278.54	56.5411	3.3415	0.0000	140.0782
Total		**1,740.5014**	**102.8607**	**0.0000**	**4,312.0184**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	1008.32	204.6799	12.0962	0.0000	507.0857
General Heavy Industry	4866.7	987.8961	58.3830	0.0000	2,447.4708
Industrial Park	2420.72	491.3843	29.0400	0.0000	1,217.3838
Strip Mall	278.54	56.5411	3.3415	0.0000	140.0782
Total		**1,740.5014**	**102.8607**	**0.0000**	**4,312.0184**

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