AIR QUALITY AND GREENHOUSE GAS ANALYSIS

Apollo Senior Care
3141 East Valley Parkway
Escondido, California 92027

Prepared For

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for the

Apollo Senior Care Facility
Escondido, CA

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List of Acronyms

APCD	Air Pollution Control District
AB 32	Assembly Bill 32, Global Warming Solutions Act of 2006
ARB	Air Resources Board
CAA	Clean Air Act (Federal)
CAAQS	California Ambient Air Quality Standard
CAPCOA	California Air Pollution Control Officers Association
CAT	Climate Action Team
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
EPIC	University of San Diego School of Law Energy Policy Initiative Center
GCC	Global Climate Change
GHG	Greenhouse Gas
GGRP	Greenhouse Gas Reduction Plan
GP	General Plan
GWP	Global Warming Potential
H_2S	Hydrogen Sulfide
HFCs	Hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
LEED	Leadership in Energy and Environmental Design
mg/m^3	Milligrams per Cubic Meter
$\mu g/m^3$	Micrograms per Cubic Meter
MMT	Million Metric Tons
MW	Megawatts
NAAQS	National Ambient Air Quality Standard
N_2O	Nitrous Oxide
NOx	Oxides of Nitrogen
NO_2	Nitrogen Dioxide
OPR	State Office of Planning and Research
O_3	Ozone
PFCs	Perfluorocarbons
$PM_{2.5}$	Fine Particulate Matter (particulate matter with an aerodynamic diameter of 2.5 microns or less
PM_{10}	Respirable Particulate Matter (particulate matter with an aerodynamic diameter of 10 microns or less
ppm	Parts per million

RAQS	San Diego County Regional Air Quality Strategy
ROCs	Reactive Organic Compounds
ROG	Reactive Organic Gases
RPS	Renewable Portfolio Standards
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SDCGHGI	San Diego County Greenhouse Gas Inventory
SIP	State Implementation Plan
SOx	Oxides of Sulfur
SO_2	Sulfur Dioxide
TACs	Toxic Air Contaminants
T-BACT	Toxics Best Available Control Technology
UNFCCC	United Nations Framework Convention on Climate Change
USBGC	U.S. Green Building Council
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compound

1.0 INTRODUCTION

Apollo Development Group is proposing to construct an 82-unit Assisted Living/Memory Care facility at 3141 East Valley Parkway in the City of Escondido. The Project site is approximately 2.2 acres in size, and is currently occupied by a 1,734 square foot single-family residence. The Project will include 82 units, including 56 assisted living units consisting of studio, one-bedroom, and two-bedroom units, and 26 memory care units consisting of studios and double rooms. The project will include 40 parking spaces for employees and residents/guests. The facility will be three stories high and will be a total of 60,277 square feet.

Construction is scheduled to commence in June 2020 and will require 18 months to complete. Construction will include demolition of the existing single-family residence, site grading, and construction of the building and parking lot.

This Air Quality and Greenhouse Gas Analysis includes an evaluation of existing conditions in the project vicinity, an assessment of potential impacts associated with project construction, and an evaluation of project operational impacts for both criteria pollutants and greenhouse gases (GHGs).

2.0 EXISTING CONDITIONS

2.1 Current Development

The 2.2-acre project site is occupied by a single-family residential dwelling. The residence will be removed prior to developing the site. The site is surrounded by Valley High School to the north, residential development to the west and south, and open lands to the southeast.

2.2 Regulatory Setting

Air quality is defined by ambient air concentrations of specific pollutants identified by the United States Environmental Protection Agency (EPA) to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The California Air Resources Board (ARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles.

Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. In September 1997, the EPA promulgated 8-hour O_3 and

24-hour and annual $PM_{2.5}$ national standards. As a result, this action has initiated a new planning process to monitor and evaluate emission control measures for these pollutants. The SDAB is considered a marginal nonattainment area for the 8-hour NAAQS for O_3. The SDAB is in attainment for the NAAQS for all other criteria pollutants.

The ARB is the state regulatory agency with authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The ARB is responsible for the development, adoption, and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The ARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The San Diego APCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County.

The APCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in 2016 (APCD 2016). The RAQS outlines APCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS does not address the state air quality standards for PM_{10} or $PM_{2.5}$. The APCD has also developed the air basin's input to the State Implementation Plan (SIP), which is required under the Federal Clean Air Act for areas that are out of attainment of air quality standards. The SIP includes the APCD's plans and control measures for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. The Attainment Plan forms the basis for the SIP update, as it contains documentation on emission inventories and trends, the APCD's emission control strategy, and an attainment demonstration that shows that the SDAB will meet the NAAQS for O_3. Emission

inventories, projections, and trends in the Attainment Plan are based on the latest O_3 SIP planning emission projections compiled and maintained by ARB. Supporting data were developed jointly by stakeholder agencies, including ARB, the APCD, the South Coast Air Quality Management District (SCAQMD), the Southern California Association of Governments (SCAG), and SANDAG. Each agency plays a role in collecting and reviewing data as necessary to generate comprehensive emission inventories. The supporting data include socio-economic projections, industrial and travel activity levels, emission factors, and emission speciation profiles. These projections are based on data submitted by stakeholder agencies including projections in municipal General Plans.

The following specific descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on EPA (EPA 2007) and the ARB (ARB 2005).

Ozone. O_3 is considered a photochemical oxidant, which is a chemical that is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx), both by-products of combustion, react in the presence of ultraviolet light. O_3 is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to O_3.

Carbon Monoxide. CO is a product of combustion, and the main source of CO in the SDAB is from motor vehicle exhaust. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision.

Nitrogen Dioxide. NO_2 is also a by-product of fuel combustion, and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in this size range has been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, combustion, tire and brake wear, construction operations and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs.

Sulfur dioxide. SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead. Pb in the atmosphere occurs as particulate matter. Pb has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Pb has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Pb is also classified as a probable human carcinogen.

Volatile Organic Compounds. While the EPA has not set ambient air quality standards for VOCs, VOCs are considered ozone precursors as they react in the atmosphere to form O_3. Accordingly, VOCs are regulated through limitations on VOC emissions from solvents, paints, processes, and other sources.

Hazardous Air Pollutants. Also referred to as toxic air contaminants (TACs), HAPs are pollutants that are known or suspected to result in adverse health effects upon exposure through inhalation or other exposure routes. HAPs from stationary sources are regulated through the

federal National Emission Standards for Hazardous Air Pollutants (NESHAPS) program. HAPs from mobile sources such as vehicles and off-road equipment are regulated through emission standards implemented by the EPA and/or state regulatory agencies.

Sulfates. Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The ARB's sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide. H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the standard would result in exposure to a very disagreeable odor. In 1984, an ARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Vinyl Chloride. Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer

is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans.

Visibility Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. The CAAQS is intended to limit the frequency and severity of visibility impairment due to regional haze. A separate standard for visibility-reducing particles that is applicable only in the Lake Tahoe Air Basin is based on reduction in scenic quality.

Table 1 presents a summary of the ambient air quality standards adopted by the federal and California Clean Air Acts.

Table 1 Ambient Air Quality Standards						
POLLUTANT	**AVERAGE TIME**	**CALIFORNIA STANDARDS**		**NATIONAL STANDARDS**		
		Concentration	**Method**	**Primary**	**Secondary**	**Method**
Ozone (O_3)	1 hour	0.09 ppm (176 µg/m^3)	Ultraviolet Photometry	--	--	Ethylene Chemiluminescence
	8 hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m^3)	--	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm (57 µg/m^3)	Gas Phase Chemiluminescence	0.053 ppm (100 µg/m^3)	0.053 ppm (100 µg/m^3)	Gas Phase Chemiluminescence
	1 hour	0.18 ppm (339 µg/m^3)		0.100 ppm (188 µg/m^3)	--	
Sulfur Dioxide (SO_2)	24 hours	0.04 ppm (105 µg/m^3)	Ultraviolet Fluorescence	--	--	Pararosaniline
	3 hours	--		--	0.5 ppm (1300 µg/m^3)	
	1 hour	0.25 ppm (655 µg/m^3)		0.075 ppm (196 µg/m^3)	--	
Respirable Particulate Matter (PM_{10})	24 hours	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	150 µg/m^3	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		--	--	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	Inertial Separation and Gravimetric Analysis
	24 hours	--		35 µg/m^3	35 µg/m^3	
Sulfates	24 hours	25 µg/m^3	Ion Chromatography	--	--	--
Lead	30-day Average	1.5 µg/m^3	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 µg/m^3	1.5 µg/m^3	
	3-Month Rolling Average	--		0.15 µg/m^3	0.15 µg/m^3	
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence	--	--	--
Vinyl Chloride	24 hours	0.010 ppm (26 µg/m^3)	Gas Chromatography	--	--	--

ppm= parts per million; µg/m^3 = micrograms per cubic meter ; mg/m^3= milligrams per cubic meter
Source: California Air Resources Board, www.arb.ca.gov, 2019

Toxic Air Contaminants. In 1983, the California Legislature enacted a program to identify the health effects of Toxic Air Contaminants (TACs) and to reduce exposure to these contaminants to protect the public health (AB 1807: Health and Safety Code sections 39650-39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The State of California has identified diesel particulate matter as a TAC. Diesel particulate matter is emitted from on- and off-road vehicles that utilize diesel as fuel. Following identification of diesel particulate matter as a TAC in 1998, the ARB has worked on developing strategies and regulations aimed at reducing the emissions and associated risk from diesel particulate matter. The overall strategy for achieving these reductions is found in the *Risk Reduction Plan to Reduce Particulate Matter from Diesel-Fueled Engines and Vehicles* (State of California 2000). A stated goal of the plan is to reduce the cancer risk statewide arising from exposure to diesel particulate matter by 75 percent by 2010 and by 85 percent by 2020. The *Risk Reduction Plan* contains the following three components:

- New regulatory standards for all new on-road, off-road and stationary diesel-fueled engines and vehicles to reduce diesel particulate matter emissions by about 90 percent overall from current levels;
- New retrofit requirements for existing on-road, off-road and stationary diesel-fueled engines and vehicles where determined to be technically feasible and cost-effective; and
- New Phase 2 diesel fuel regulations to reduce the sulfur content levels of diesel fuel to no more than 15 ppm to provide the quality of diesel fuel needed by the advanced diesel particulate matter emission controls.

A number of programs and strategies to reduce diesel particulate matter are in place or are in the process of being developed as part of the ARB's Diesel Risk Reduction Program.

The City of Escondido has adopted a Resource Conservation Element in its updated General Plan (City of Escondido 2012). Included in the Element are Air Quality and Climate Protection. The City's stated goal is to improve air quality in the city and the region to maintain the community's health and reduce GHG emissions that contribute to climate change. General Plan Policies include reducing emissions of both criteria pollutant and GHGs through encouraging land use patterns that reduce automobile dependency and reducing vehicle miles traveled through supporting public transit and carpooling opportunities.

The City of Escondido has also adopted a Climate Action Plan (CAP) that outlines policies to reduce GHG emissions and meet the goals of the state of California. Further discussion of regulations governing GHGs is provided in Section 5.

2.2 Climate and Meteorology

The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. Figure 2 provides a graphic representation of the prevailing winds in the project vicinity, as measured at the APCD's Escondido Monitoring Station (the closest meteorological monitoring station to the site). The high pressure cell also creates two types of temperature inversions that may act to degrade local air quality.

The climate of the Escondido area is characterized by a repetitive pattern of frequent early morning cloudiness, hazy afternoon sunshine, clean daytime onshore breezes and little temperature change throughout the year. Most of the annual rainfall occurs in the winter while summers are often completely dry. An average of 13.09 inches of rain falls each year, mainly occurring from mid-November to early April. The average maximum temperature is 74 degrees F, while the average minimum temperature is 51.9 degrees F (WRCC 2019).

Unfortunately, the same atmospheric conditions that create a desirable living climate combine to limit the ability of the atmosphere to disperse the air pollution generated by the large population

attracted by the climate. The onshore winds across the coastline diminish quickly when they reach the foothill communities east of San Diego, and the sinking air within the offshore high pressure system forms a massive temperature inversion that traps all air pollutants near the ground. The resulting horizontal and vertical stagnation, in conjunction with ample sunshine, cause a number of reactive pollutants to undergo photochemical reactions and form smog that degrades visibility and irritates tear ducts and nasal membranes. High smog levels in coastal communities occasionally occur when polluted air from the South Coast (Los Angeles) Air Basin drifts seaward and southward at night, and then blows onshore the next day. Such weather patterns are particularly frustrating because no matter what San Diego County does to achieve clean air, such interbasin transport will cause occasionally unhealthy air over much of the County despite its best air pollution control efforts.

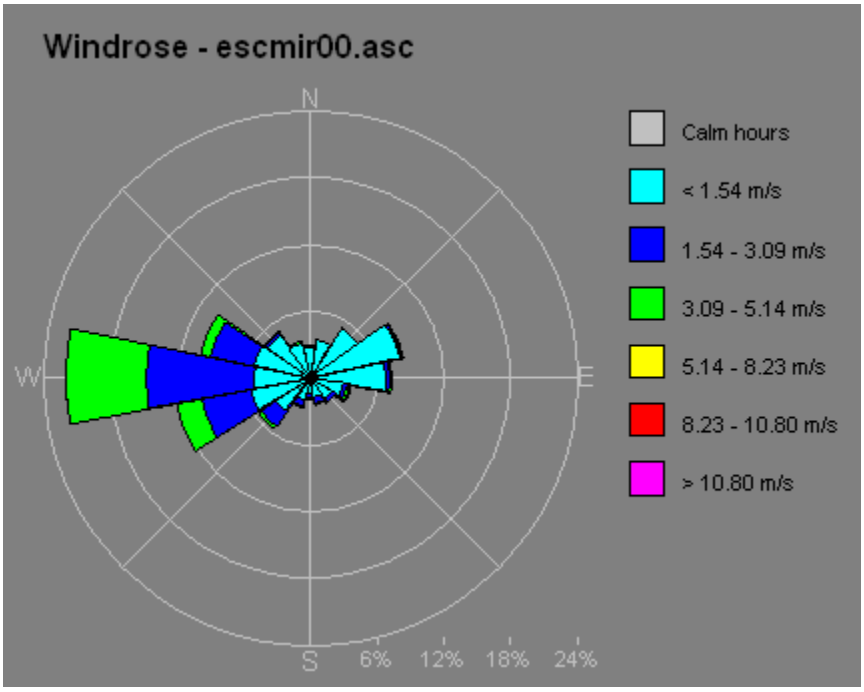

Figure 2. Wind Rose – Escondido Monitoring Station

2.3 Background Air Quality

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and

determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring station to the project site is the East Valley Parkway monitoring station station in Escondido, which measures O_3, $PM_{2.5}$, PM_{10}, NO_2, and CO. However, monitoring at the Escondido monitoring station was discontinued in August 2015. Therefore, to provide representative background data, ambient concentrations of pollutants over the three-year period from 2013 to 2015 are presented in Table 2.

The federal 8-hour ozone standard was exceeded five times in 2014 at the Escondido monitoring station. The standard was not exceeded in 2013 or 2015. The Escondido monitoring station recorded exceedances of the federal $PM_{2.5}$ standard during the period from 2013 through 2015; however, the standard is not defined by a single exceedance and the SDAB remains unclassified/attainment for $PM_{2.5}$. The Escondido monitoring station also measured exceedances of the state O_3, PM_{10}, and $PM_{2.5}$ standards during the period from 2013 to 2015. The data from the monitoring stations indicate that air quality is in attainment of all other NAAQS and CAAQS.

Table 2
Ambient Background Concentrations
(ppm unless otherwise indicated)

Pollutant	Averaging Time	2013	2014	2015	CAAQS	NAAQS	Monitoring Station
Ozone	8 hour	0.074	0.079	0.071	0.070	0.070	Escondido
	1 hour	0.084	0.099	0.079	0.09	--	Escondido
PM_{10}	Annual	23.1	21.5	17.5	20 $\mu g/m^3$	--	Escondido
	24 hour	82	44	30	50 $\mu g/m^3$	150 $\mu g/m^3$	Escondido
$PM_{2.5}$	Annual	10.5	9.6	8.6	12 $\mu g/m^3$	15 $\mu g/m^3$	Escondido
	24 hour	56.3	77.5	29.4	--	35 $\mu g/m^3$	Escondido
NO_2	Annual	0.013	0.011	0.010	0.030	0.053	Escondido
	1 hour	0.061	0.063	0.048	0.18	0.100	Escondido
CO	8 hour	2.6	3.1	2.0	9.0	9	Escondido
	1 hour	3.2	3.8	3.1	20.0	35	Escondido

[1]Secondary NAAQS

NA – Data not available

3.0 THRESHOLDS OF SIGNIFICANCE

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the State CEQA Guidelines which provides guidance that a project would have a significant environmental impact if it would:

1. Conflict or obstruct the implementation of the San Diego Regional Air Quality Strategy (RAQS) or applicable portions of the State Implementation Plan (SIP);
2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and volatile organic compounds (VOCs);
4. Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations; or
5. Create objectionable odors affecting a substantial number of people.

To determine whether a project would (a) result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation; or (b) result in a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors NO_X and VOCs, project emissions may be evaluated based on the quantitative emission thresholds established by the San Diego APCD. As part of its air quality permitting process, the APCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIA).

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. Since APCD does not have AQIA thresholds for emissions of VOCs, for conservative purposes the SCAQMD's quantitative significance thresholds were used to evaluate potential significance of impacts. The screening thresholds are included in the table below.

Table 3 SCREENING-LEVEL CRITERIA FOR AIR QUALITY IMPACTS	
Pollutant	Total Emissions
Construction Emissions	
	Lb. per Day
Respirable Particulate Matter (PM_{10})	150
Fine Particulate Matter ($PM_{2.5}$)	55
Oxides of Nitrogen (NOx)	100
Oxides of Sulfur (SOx)	150
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Operational Emissions	
	Lb. per Day
Respirable Particulate Matter (PM_{10})	150
Fine Particulate Matter ($PM_{2.5}$)[1]	55
Oxides of Nitrogen (NOx)	55
Oxides of Sulfur (SOx)	150
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3
Volatile Organic Compounds (VOC)[2]	55

Source: SCAQMD CEQA Significance Thresholds, www.aqmd.gov

The thresholds listed in Table 3 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the State and Federal Ambient Air Quality Standards, including appropriate background levels. For nonattainment pollutants (ozone, with ozone precursors NOx and VOCs, and PM_{10}), if emissions exceed the thresholds shown in Table 3, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or Hazardous Air Pollutants (HAPs). In San Diego County, APCD Regulation XII establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit additional TACs. Under Rule 1210, emissions of TACs that result in a cancer risk of 10 in 1 million or less and a health hazard index of one or less would not be required to notify the public of potential health risks. If a project has the potential to result in emissions of any TAC or HAP which result in a cancer risk of greater than 10 in 1 million, the project would be deemed to have a potentially significant impact.

With regard to evaluating whether a project would have a significant impact on sensitive receptors, air quality regulators typically define sensitive receptors as schools (Preschool-12th Grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Any project which has the potential to directly impact a sensitive receptor located within 1 mile and results in a health risk greater than 10 in 1 million would be deemed to have a potentially significant impact.

APCD Rule 51 (Public Nuisance) also prohibits emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. A project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of offsite receptors.

The impacts associated with construction and operation of the project were evaluated for significance based on these significance criteria.

4.0 IMPACTS

The proposed Apollo Senior Care Facility includes both construction and operational impacts. Construction impacts include emissions associated with site grading/preparation, utilities installation, construction of buildings, architectural coatings application, and paving. Operational impacts include emissions associated with the project, including traffic, at full buildout.

4.1 Consistency with Air Quality Plans

Projects that are consistent with existing General Plan documents, which are used to develop air emissions budgets for the purpose of air quality planning and attainment demonstrations, would be consistent with the SDAB's air quality plans, including the Regional Air Quality Strategy (RAQS) and the State Implementation Plan (SIP). Both of these air quality plans contain strategies for the region to attain and maintain the ambient air quality standards. Provided the project is in compliance with applicable Rules and Regulations adopted by the SDAPCD through their air quality planning process, the project would not conflict with or obstruct implementation of the RAQS or SIP.

The site is within the Northeast Gateway Specific Plan Area. The Northeast Gateway Specific Plan Area is designed primarily for residential development. The Project site is within an area designated for low-density residential dwellings. The Project has been deemed consistent with the General Plan uses. The project would therefore not conflict with or obstruct implementation of the RAQS and SIP.

The project will be in compliance with applicable Rules and Regulations adopted by the SDAPCD, and will not result in a significant impact.

4.2 Compliance with Air Quality Standards

4.2.1 Construction Impacts

An analysis was conducted assuming that construction would be completed in a single phase. The project construction would be completed in 18 months. Construction was assumed to commence in June 2020 and be complete in November 2021. Construction phases would consist of demolition of the existing residential dwelling; grading and utilities installation; building construction; paving; and architectural coatings application. Grading of the site is estimated to consist of 15,290 cubic yards (CY) of cut, 2,305 CY of fill, with 12,985 net CY of export.

Emissions from construction of the project were estimated through the use of the CalEEMod Model (SCAQMD 2016). It was assumed that standard fugitive dust control measures would be implemented, including watering of active sites three times daily.

For the purpose of estimating emissions from the application of architectural coatings, it was assumed that water-based coatings that would be compliant with SDAPCD Rule 67.0.1 VOC limitations would be used for both exterior and interior surfaces. Rule 67.0.1 requires flat architectural coatings to meet a VOC limit of 50 grams/liter, and non-flat coatings to meet a VOC limit of 100 grams/liter. For the purpose of this analysis, this assumption was included in the CalEEMod Model by assuming that the architectural coating emissions would meet a VOC limit of 50 grams/liter for interior coatings and 100 grams/liter for exterior coatings.

Table 4 provides a summary of the emission estimates for construction of the proposed project, assuming standard measures are implemented to reduce emissions, as calculated with the CalEEMod Model. Refer to Appendix A for detailed model output files. As shown in the tables, emissions associated with construction are below the significance thresholds for all construction phases and pollutants. Construction of the project would be short-term and temporary. Thus the emissions associated with construction would not result in a significant impact on the ambient air quality.

Table 4 Estimated Construction Emissions						
Emission Source	**ROG**	**NOx**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
lbs/day						
Demolition						
Grading - Fugitive Dust	-	-	-	-	0.03	0.005
Offroad Diesel	2.13	20.95	14.66	0.02	1.15	1.08
Haul Trucks	0.003	0.10	0.02	0.0003	0.007	0.001
Worker Travel	0.05	0.03	0.37	0.001	0.11	0.03
TOTAL	**2.18**	**21.08**	**15.05**	**0.02**	**1.30**	**1.12**
Significance Criteria	75	150	550	150	150	55
Significant?	No	No	No	No	No	No
Grading						
Grading - Fugitive Dust	-	-	-	-	2.39	1.30
Offroad Diesel	1.92	21.34	9.94	0.02	0.99	0.91
Haul Trucks	0.29	10.29	2.34	0.03	0.68	0.21
Worker Travel	0.04	0.02	0.28	0.001	0.08	0.02
TOTAL	**2.25**	**31.65**	**12.56**	**0.051**	**4.14**	**2.44**
Significance Criteria	75	150	550	150	150	55
Significant?	No	No	No	No	No	No
Building Construction						
Offroad Diesel	2.29	17.43	14.90	0.03	0.95	0.91
Vendor Trips	0.04	1.24	0.32	0.003	0.08	0.03
Worker Travel	0.24	0.16	1.87	0.006	0.55	0.15
TOTAL	**2.57**	**18.83**	**17.09**	**0.04**	**1.58**	**1.09**
Significance Criteria	75	150	550	150	150	55
Significant?	No	No	No	No	No	No
Paving						
Asphalt Offgassing	0.01	-	-	-	-	-
Offroad Diesel	1.06	10.65	11.78	0.02	0.58	0.54
Worker Travel	0.05	0.03	0.40	0.001	0.12	0.03
TOTAL	**1.12**	**10.68**	**12.18**	**0.02**	**0.70**	**0.57**
Significance Criteria	75	150	550	150	150	55
Significant?	No	No	No	No	No	No
Architectural Coatings Application						
Architectural Coatings Offgassing	7.42	-	-	-	-	-
Offroad Diesel	0.22	1.53	1.82	0.003	0.09	0.09
Worker Trips	0.05	0.03	0.37	0.001	0.12	0.03
TOTAL	**7.69**	**1.56**	**2.19**	**0.004**	**0.21**	**0.12**
Significance Criteria	75	150	550	150	150	55
Significant?	No	No	No	No	No	No
Maximum Daily Emissions						
Maximum Daily Emissions	**11.12**	**31.65**	**30.93**	**0.06**	**4.14**	**2.44**
Significance Criteria	75	150	550	150	150	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

4.2.2 Operational Impacts

The main operational impacts associated with the Project would be impacts associated with traffic. Minor impacts would be associated with energy use and landscaping. To address whether the Project would result in emissions that would violate any air quality standard or contribute substantially to an existing or proposed air quality violation, the operational emissions associated with the project were compared with the significance thresholds.

To estimate emissions associated with Project-generated traffic, the CalEEMod Model, Version 2016.3.2, was used. Trip generation rates from the Traffic Technical Memorandum (Linscott, Law and Greenspan 2018) were used in the model. The CalEEMod Model contains emission factors from the EMFAC2014 model. Project-related traffic was assumed to be comprised of a mixture of vehicles in accordance with the CalEEMod Model default outputs for traffic. This assumption includes light duty autos and light duty trucks (i.e., small trucks, SUVs, and vans) as well as medium- and heavy-duty vehicles that may be traveling to the facility to make deliveries. For conservative purposes, emission factors representing the vehicle mix for 2020 were used to estimate emissions as 2020 was assumed to be the first year of full operation; based on the results of the EMFAC2014 model for subsequent years, emissions would decrease on an annual basis from 2020 onward due to phase-out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the model. Emissions associated with area sources (energy use and landscaping activities) were also estimated using the default assumptions in the CalEEMod Model.

Based on the estimates of the emissions associated with project operations, the emissions are below the significance criteria for all pollutants. Because emissions are less than the significance levels, they would not result in a significant air quality impact.

Table 5 Estimated Operational Emissions						
Emission Source	**ROG**	**NOx**	**CO**	**SO_x**	**PM_{10}**	**$PM_{2.5}$**
Summer, lbs/day						
Area Sources	1.63	0.08	6.78	0.0004	0.04	0.04
Energy Use	0.02	0.15	0.07	0.001	0.01	0.01
Vehicular Emissions	0.36	1.48	4.29	0.01	1.25	0.34
TOTAL	**2.01**	**1.72**	**11.14**	**0.02**	**1.30**	**0.39**
Significance Criteria	55	55	550	150	150	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*
Winter, lbs/day						
Area Sources	1.63	0.08	6.78	0.0004	0.04	0.04
Energy Use	0.02	0.15	0.07	0.001	0.01	0.01
Vehicular Emissions	0.35	1.53	4.21	0.01	1.25	0.34
TOTAL	**2.00**	**1.76**	**11.06**	**0.02**	**1.30**	**0.39**
Significance Criteria	55	55	550	150	150	55
Significant?	*No*	*No*	*No*	*No*	*No*	*No*

4.3 Cumulative Impact Analysis

A project could result in a cumulatively significant impact if it would generate emissions that constitute a cumulatively considerable net increase of PM_{10} or exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and volatile organic compounds (VOCs). The project site is in an area that is largely developed, and emissions from existing projects are part of the air quality background.

No specific projects were identified in the immediate vicinity of the project that would be likely to be constructed simultaneously with the project. Furthermore, the impacts associated with the project are below the significance thresholds. Because the Project's emissions are less than significant, the combined emissions during construction and operations would not be expected to result in a cumulatively considerable impact to air quality.

4.4 Impacts to Sensitive Receptors

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO "hot spots." According to Caltrans guidance (University of California Davis 1998),

CO “hot spots” have the possibility of forming at intersections with a level of service (LOS) of E or F. Due to the small size of the project, the project would not generate substantial traffic that would results in a degradation in LOS at nearby intersections. It is therefore anticipated to no CO “hot spots” would result from project-related traffic.

Construction and operations would result in minor emissions of TACs from construction equipment and motor vehicles. The project is an assisted living facility and is not a major source of TACs. The amounts of TACs that would be generated from construction equipment and motor vehicles is negligible and would not result in a significant impact to sensitive receptors.

4.5 Odors

During construction, diesel equipment operating at the site may generate some nuisance odors; however, due to the distance of sensitive receptors to the project site and the temporary nature of construction, odors associated with project construction would not be significant.

According to the SCAQMD CEQA Air Quality Handbook (SCAQMD 1999), land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations. The Apollo Senior Care Facility does not include any of the operations cited in the SCAQMD’s handbook. Odor impacts would not be significant.

5.0 GREENHOUSE GAS ANALYSIS

To gauge the potential significance of global climate change impacts associated with the proposed project, emissions associated with construction and operation of the project were estimated. With respect to operational-related activities, the emissions inventory considered electricity use, natural gas use, water use, and vehicles. Emissions were evaluated based on their consistency with the goals of Assembly Bill (AB) 32.

5.1 General Principles and Existing Conditions

Global Climate Change (GCC) refers to changes in average climatic conditions on Earth as a whole, including temperature, wind patterns, precipitation and storms. GCC may result from natural factors, natural processes, and/or human activities that change the composition of the atmosphere and alter the surface and features of land. Historical records indicate that global climate changes have occurred in the past due to natural phenomena (such as during previous ice ages). Some data indicate that the current global conditions differ from past climate changes in rate and magnitude.

Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), which are known as greenhouse gases (GHGs). These gases allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere, much like a greenhouse. GHGs are emitted by both natural processes and human activities. Without these natural GHGs, the Earth's temperature would be about 61º Fahrenheit cooler (California Environmental Protection Agency 2006). Emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere. For example, data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years; however, concentrations of CO_2 have increased in the atmosphere since the industrial revolution.

The United Nations Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The IPCC concluded that a stabilization of GHGs at 400 to 450 ppm CO_2 equivalent concentration is required to keep global mean warming below 35.6º Fahrenheit (2º Celsius), which is assumed to be necessary to avoid dangerous climate change (Association of Environmental Professionals 2007).

State law defines greenhouse gases as any of the following compounds: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3) (California Health and Safety Code Section 38505(g).) CO_2, followed by CH_4 and N_2O, are the most common GHGs that result from human activity.

5.2 Sources and Global Warming Potentials of GHG

Anthropogenic sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). CH_4 is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Accordingly, anthropogenic sources of CH_4 include landfills, fermentation of manure and cattle farming. Anthropogenic sources of N_2O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid. Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses.

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas" (USEPA 2006). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1. The other main greenhouse gases that have been attributed to human activity include CH_4, which has a GWP of 25, and N_2O, which has a GWP of 298. Table 6 presents the GWP and atmospheric lifetimes of common GHGs. In order to account for each GHG's respective GWP, all types of GHG emissions

are expressed in terms of CO_2 equivalents (CO_2e) and are typically quantified in metric tons (MT) or millions of metric tons (MMT).

Table 6
Global Warming Potentials and Atmospheric Lifetimes of GHGs

GHG	Formula	100-Year Global Warming Potential	Atmospheric Lifetime (Years)
Carbon Dioxide	CO_2	1	Variable
Methane	CH_4	25	12
Nitrous Oxide	N_2O	298	121
Sulfur Hexafluoride	SF_6	22,800	3,200
Hydrofluorocarbons	HFCs	124 to 14,800	1 to 100
Perfluorocarbons	PFCs	7,390 to 12,200	3.000 to 50,000
Nitrogen Trifluoride	NF_3	17,200	500

Source:California Air Resources Board, https://www.arb.ca.gov/cc/inventory/background/gwp.htm

The ARB compiled a statewide inventory of anthropogenic GHG emissions and sinks that includes estimates for CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs. The current inventory covers the years 1990 to 2016, and is summarized in Table 7. Data sources used to calculate this GHG inventory include California and federal agencies, international organizations, and industry associations. The calculation methodologies are consistent with guidance from the IPCC. The 1990 emissions level is the sum total of sources and sinks from all sectors and categories in the inventory. The inventory is divided into seven broad sectors and categories in the inventory. These sectors include: Agriculture; Commercial; Electricity Generation; Forestry; Industrial; Residential; and Transportation.

Table 7 State of California GHG Emissions by Sector				
Sector	**Total 1990 Emissions ($MMTCO_2e$)**	**Percent of Total 1990 Emissions**	**Total 2016 Emissions ($MMTCO_2e$)**	**Percent of Total 2016 Emissions**
Agriculture	23.4	5%	33.84	8%
Commercial	14.4	3%	15.15	4%
Electricity Generation	110.6	26%	68.58	16%
Forestry (excluding sinks)	0.2	<1%	Not reported	
Industrial	103.0	24%	89.61	21%
Residential	29.7	7%	24.20	6%
Transportation	150.7	35%	169.38	39%
Recycling and Waste			8.81	2%
High GWP Gases			19.78	5%
Forestry Sinks	(6.7)		Not reported	

5.3 Regulatory Framework

All levels of government have some responsibility for the protection of air quality, and each level (Federal, State, and regional/local) has specific responsibilities relating to air quality regulation. GHG emissions and the regulation of GHGs is a relatively new component of this air quality regulatory framework.

5.3.1 National and International Efforts

In 1988, the United Nations and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant adverse impacts on the environment, the economy, and human health and welfare are unavoidable.

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Framework Convention on Climate Change. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of global climate change. The U.S. Supreme Court rules in *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007), that USEPA has the ability to regulate GHG emissions. In addition to the national and international efforts described above, many local jurisdictions have adopted climate change policies and programs.

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (USEPA) has authority under the Clean Air Act to regulate CO_2 emissions if those emissions pose an endangerment to the public health or welfare.

In 2009, the USEPA issued an "endangerment finding" under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the USEPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed immediately below.[1]

[1] The USEPA also has adopted standards that set a national limit on GHG emissions produced from new, modified, and reconstructed power plants, and has issued the Clean Power Plan, which is targeted toward the reduction of carbon emissions from existing power plants. The Clean Power Plan requires states to develop and implement plans that ensure that the power plants in their state – either individually, together or in combination with other measures – achieve interim performance rates over the period of 2022 to 2029 and final performance rates, rate-based goals or mass-based goals by 2030. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review.

Federal Vehicle Standards. In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order 13432 in 2007 directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the same federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. In August 2016, the USEPA and NHTSA finalized the next phase (Phase 2) of the fuel economy and GHG standards for medium- and heavy-duty trucks, which will apply to vehicles with model year 2018 and later.

Energy Independence and Security Act. The Energy Independence and Security Act of 2007 facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and to create a separate fuel economy standard for trucks.

Additional provisions of this Act address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

5.3.2 State Regulations and Standards

The following subsections describe regulations and standards that have been adopted by the State of California to address GCC issues.

Executive Orders and Legislation Establishing Overarching State Climate Policies

Executive Order S-3-05. In 2005, former Governor Schwarzenegger signed Executive Order S-3-05, which established the following GHG emission reduction goals for California: (1) by 2010,

reduce GHG emissions to 2000 levels; (2) by 2020, reduce GHG emissions to 1990 levels; and (3) by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32. Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020 (Health & Safety Code, §38550). In order to achieve this reduction mandate, AB 32 requires the ARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

In response to the adoption of AB 32, in 2007, the ARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline. The ARB's adoption of this limit is in accordance with Health & Safety Code section 38550.

Further, in 2008, the ARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*) in accordance with Health & Safety Code section 38561. The *Scoping Plan* establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020.

In 2014, the ARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update*).[2] The stated purpose of the *First Update* is to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."[3] The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32. The *First Update* also noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.[4]

[2] Health & Safety Code section 38561(h) requires the ARB to update the Scoping Plan every five years.
[3] ARB, First Update (May 2014), p. 4.
[4] Id. at p. 34.

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

Based on the ARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."[6] Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies.

In January 2017, the ARB released the draft of *The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target* (*Second Update*). This update addresses the statewide emissions reduction target established pursuant to Senate Bill (SB) 32 and Executive Order B-30-15, as discussed below. The major elements of the *Second Update*, as proposed in the ARB's January 2017 draft, include (but are not limited to) achieving the following milestones by 2030: a 50 percent Renewable Portfolio Standard (discussed below); a more stringent Low Carbon Fuel Standard (discussed below) that requires an 18 percent reduction in carbon intensity; deploying additional near-zero and zero emissions technologies in the transportation sectors; increasing the stringency of the SB 375 (discussed below) reduction targets for 2035; a 20 percent reduction in GHG emissions from the refinery sector; and, continued deployment of a declining emissions cap under the Cap-and-Trade Program.

[5] Id. at p. 6.
[6] Id. at p. 32.

2015 State of the State Address. In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing the amount of electricity derived from renewable sources from one-third to 50 percent; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the State's climate adaptation strategy. As discussed below, the second and third pillars have been codified via legislation (SB 350).

Executive Order B-30-15. In April 2015, Governor Brown signed Executive Order B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This Executive Order also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in Executive Order S-3-05 (see discussion above). Additionally, the Executive Order directed the ARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

2016 State of the State Address. In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) that represent 27 countries and six continents.

Senate Bill 32, and Assembly Bill 197. Enacted in 2016, SB 32 codifies the 2030 emissions reduction goal of Executive Order B-30-15 by requiring the ARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197. Designed to improve the transparency of the ARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires the ARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

Energy-Related Sources

Renewable Portfolio Standard. California's Renewable Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. Further, as amended in 2015 by SB 350, retail sellers of electric services must increase procurement from eligible renewable energy resources to 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030. As amended in 2018 by SB 100, retail sellers of electric services must increase procurement from eligible renewable energy resources to 44 percent of total retail sales by 2024, to 50% of total retail sales by 2026, to 52% of total retail sales by 2027, and to 60% of total retail sales by 2030.

Building Energy Efficiency Standards (Title 24). Title 24, Part 6, of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission's (CEC) 2016 Building Energy Efficiency Standards became effective on January 1, 2017.

The California Public Utilities Commission, CEC, and the ARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030.

The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC:

"A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the [CEC]'s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings."[7]

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) are commonly referred to as CALGreen, and establish voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. CALGreen is periodically amended; the most recent 2016 standards became effective on January 1, 2017.

Mobile Sources

Pavley Standards. AB 1493 required the ARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016, which

[7] CEC, 2015 Integrated Energy Policy Report (2015), p. 41.

are often times referred to as the "Pavley I" standards. The ARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns.

Low Carbon Fuel Standard. Executive Order S-1-07 requires a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by the ARB by 2020.[8] In 2009, the ARB approved the Low Carbon Fuel Standard regulations, which became fully effective in April 2010. The regulations were subsequently re-adopted in September 2015 in response to related litigation.

Advanced Clean Cars Program. In 2012, the ARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2017–2025. (This program is sometimes referred to as "Pavley II.") The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer greenhouse gases.

Senate Bill 375. The Sustainable Communities and Climate Protection Act of 2008 (SB 375) coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options.[9] SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the Project area (here, the San Diego Association of Governments [SANDAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan that will achieve GHG emission reduction targets set by the ARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

[8] Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the "lifecycle" of a transportation fuel.

[9] ARB, First Update (May 2014), pp. 49-50.

For the area under SANDAG's jurisdiction, including the Project site, the ARB adopted regional targets for reduction of mobile source-related GHG emissions by 7 percent for 2020 and by 13 percent for 2035. (These targets are expressed by the ARB as a percent change in per capita GHG emissions relative to 2005 levels.)

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

Zero Emission Vehicles. Zero emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued Executive Order B-16-2012, which calls for the increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the Executive Order also calls upon the ARB, CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the State's residents with easy access to ZEV infrastructure.

In its *First Update*, the ARB recognized that the light-duty vehicle fleet "will need to become largely electrified by 2050 in order to meet California's emission reduction goals."[10] Accordingly, the ARB's ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.[11] The ARB's draft *Second Update* also identified, as a "major element" of its framework to achieve the statewide

[10] Id. at p. 48.
[11] Id. at p. 47.

2030 emissions reduction target codified by SB 32, the objective to put 4.2 million ZEVs on the road by 2030.

The proliferation of zero emission vehicles is being supported in multiple ways. For example, California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for the ARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles. Additionally, CALGreen requires new residential and non-residential construction to be pre-wired to facilitate the future installation and use of electric vehicle chargers (see Section 4.106.4 and Section 5.106.5.3 of 2016 CALGreen Standards for the residential and non-residential pre-wiring requirements, respectively). As a final example, in January 2017, San Diego Gas & Electric Company (SDG&E) applied to the California Public Utilities Commission for authority to implement numerous programs intended to accelerate the electrification of the transportation sector. SDG&E's application includes, but is not limited to, proposals to: (i) install up to 90,000 charging stations at single-family homes throughout the company's service area; (ii) install charging infrastructure at various park-and-ride locations; (iii) provide incentives for electric taxis and shuttles; and, (iv) provide educational programs and financial incentives for the sale of electric vehicles.

Solid Waste Sources. The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) diversion of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling*, which identified concepts that would assist the State in reaching the 75 percent goal by

2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

5.3.3 Local Regulations and Standards

In December 2013, the City of Escondido adopted its *Greenhouse Gas Emissions Adopted CEQA Thresholds and Screening Tables* (City of Escondido 2013). According to the thresholds, a project must demonstrate consistency with the City's Climate Action Plan, which includes reducing 26,807 MTCO2e per year from new development by 2020 as compared to unmitigated conditions. In their thresholds guidance, the City adopted a screening threshold of 2,500 MTCO2e per year to define small projects that are considered less than significant. For projects with GHG emissions above 2,500 MTCO2e per year, the City adopted Screening Tables with GHG reduction measures, which are assigned point values based on the anticipated amount of GHG emission reductions that would be achieved. Projects would be required to demonstrate that they would achieve 100 total points from GHG emission reduction measures to demonstrate compliance with the CAP and less than significant impacts.

For the purpose of this analysis, the 2,500 MTCO2e threshold was used as a significance threshold under CEQA. As a second threshold, achieving 100 points in GHG emission reductions using the City's Screening Tables would also demonstrate consistency with the CAP and a less than significant impact.

5.4 Potential Climate Change Impacts

5.4.1 Existing Conditions

The site is currently occupied by a single-family residential dwelling. The site as it exists is a source of a small amount of GHG emissions attributable to the residential dwelling's use.

5.4.2 Construction Greenhouse Gas Emissions

Construction GHG emissions include emissions from heavy construction equipment, truck traffic, and worker trips. Emissions were calculated using the CalEEMod Model, Version 2016.3.2, which is the newest land use emissions model developed by the SCAQMD (SCAQMD 2016), for completed and proposed construction. Table 8 presents the construction-related emissions associated with construction of the project.

Table 8
Construction GHG Emissions
Total Metric tons

Construction Phase	CO_2e Emissions, metric tons
Construction	657

Per guidance from the SCAQMD (SCAQMD 2008), construction emissions are amortized over a 30-year period to account for the contribution of construction emissions over the lifetime of the project. Amortizing the emissions from construction of the Proposed Project over a 30-year period would result in an annual contribution of 22 metric tons of CO_2e. These emissions are added to operational emissions to account for the contribution of construction to GHG emissions for the lifetime of the project.

5.4.3 Operational Greenhouse Gas Emissions

Development would involve the construction of an 82-unit assisted living/memory care facility. The total development would be 60,277 square feet.

5.4.3.1 Area Sources

The CalEEMod model assumes that area source emissions associated with the project would include minor emissions from landscaping equipment and maintenance of the building.

5.4.3.2 Energy Use

As discussed above, the CalEEMod Model assumes a baseline of 2016 Title 24 standards. The baseline energy use provides a conservative estimate of current energy requirements relative to future energy requirements.

5.4.3.3 Water Usage

Water usage was estimated based on the CalEEMod Model. The GHG emissions associated with water usage, conveyance, treatment, and wastewater disposal are included within the CalEEMod model calculations. For the purpose of this analysis, it was assumed that the project would be equipped with low-flow fixtures.

5.4.3.4 Vehicle Emissions

The analysis of GHG emissions from vehicles is based on total vehicle miles traveled annually. According to the Traffic Technical Memorandum (Linscott, Law and Greenspan 2018), the Project would generate 2.5 trips per unit. These trip generation rates were included in the analysis.

5.4.3.5 Solid Waste

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, transportation of waste, and disposal. Solid waste generation rates were estimated from CalEEMod Model, and GHG emissions from solid waste management were estimated using the model, assuming landfilling of solid waste with flaring. It was assumed based on statewide solid waste reduction goals that solid waste generation would be reduced by 50%.

5.4.3.6 Operational Emissions Summary

The results of the inventory for operational emissions for the proposed project are presented in Table 9. These include GHG emissions associated with buildings (natural gas, purchased electricity), water consumption (energy embodied in potable water), solid waste management (including transport and landfill gas generation), and vehicles.

Table 9
SUMMARY OF ESTIMATED OPERATIONAL GREENHOUSE GAS EMISSIONS

Emission Source	Annual Emissions (Metric tons/year)			
	CO_2	CH_4	N_2O	CO_2e
Operational Emissions				
Area Sources	1	0.0010	0.0000	1
Energy Use	117	0.0040	0.0014	117
Water Use	24	0.1402	0.0035	29
Solid Waste Management	8	0.4489	0.0000	19
Vehicle Emissions	237	0.0126	0.0000	237
Amortized Construction Emissions	22	0.0000	0.0000	22
Total	**409**	**0.6067**	**0.0049**	**425**
Global Warming Potential Factor	**1**	**25**	**298**	
CO_2 Equivalent Emissions	**409**	**15**	**1**	**425**

As shown in Table 9, the total CO_2e emissions from the project would be 425 metric tons. The total GHG emissions are below the City of Escondido's screening threshold of 2,500 MTCO2e per year. The project's contribution to GHG emissions would therefore be less than significant.

6.0 CONCLUSIONS

Emissions of criteria pollutants and GHGs were calculated for the proposed Apollo Senior Center Project, which proposes to construct and operate an assisted living/memory care facility at 1341 East Valley Parkway in the City of Escondido. Emissions were calculated using the CalEEMod Model, Version 2016.3.2.

Emissions of both criteria pollutants and GHGs are below the City's screening thresholds. Impacts would therefore be less than significant.

6.0 REFERENCES

Association of Environmental Professionals. 2007. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*. June.

California Air Resources Board. 2005. *ARB Fact Sheet: Air Pollution and Health.* December 27.

California Air Pollution Control Officers Association. 2008. *CEQA and Climate Change – Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.* January.

California Air Resources Board. 2008. *Climate Change Scoping Plan*. December.

California Air Resources Board. 2011. *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document.*

California Air Resources Board. 2014. *First Update to the Climate Change Scoping Plan*.

California Air Resources Board. 2017. *The 2017 Climate Change Scoping Plan Update.* January 20.

California Climate Change Center (CCCC). 2006. *Our Changing Climate, Assessing the Risks to California: A Summary Report from the California Climate Change Center*. July.

California Natural Resources Agency. 2009. *Initial Statement of Reasons for Regulatory Action, Proposed Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gases Pursuant to SB 97*. July.

California Natural Resources Agency. 2009. *Adopted Text of the CEQA Guidelines Amendments.* December 30. http://ceres.ca.gov/ceqa/docs/Adopted_and_Transmitted_Text_of_SB97_CEQA_Guidelines_Amendments.pdf

City of Escondido. 2012. *City of Escondido General Plan.*

City of Escondido. 2013. *Greenhouse Gas Emissions – Adopted CEQA Thresholds and Screening Tables.*

Linscott, Law, and Greenspan. 2018. *Technical Memorandum – 3141 East Valley Parkway Assisted Living Facility*.

Office of Planning and Research. 2008. *Technical Advisory: CEQA and Global Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*. July 19.

San Diego Air Pollution Control District. 2007. *Eight-Hour Ozone Attainment Plan for San Diego County*.

San Diego Air Pollution Control District. 2016. *2016 Regional Air Quality Strategy Revision*. April 22.

South Coast Air Quality Management District. 1999. CEQA Air Quality Handbook. (as updated)

South Coast Air Quality Management District. 2008. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. December 5.

South Coast Air Quality Management District. 2013. SCAQMD Air Quality Significance Thresholds. http://www.aqmd.gov/ceqa/handbook/signthres.pdf. March.

South Coast Air Quality Management District. 2017. CalEEMod Model, Version 2016.3.2.

U.S. EPA. 2007. *The Plain English Guide to the Clean Air Act.* http://www.epa.gov/air/caa/peg/index.html.

U.S. EPA. 2017. *Overview of the Clean Air Act and Air Pollution.* http://www.epa.gov/air/caa/peg/index.html.

Appendix A

Emission Calculations

Apollo Senior Care

San Diego Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	82.00	Dwelling Unit	1.74	60,277.00	235
Parking Lot	40.00	Space	0.36	16,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.42	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 33% RPS

Land Use - Project description

Construction Phase - Construction schedule

Grading - Export

Demolition -

Architectural Coating - Rule 67.0.1 coatings

Vehicle Trips - Traffic analysis

Woodstoves - No fireplaces

Area Coating - Rule 67.0.1 coatings

Energy Use -

Land Use Change - On site conditions

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	NumDays	220.00	326.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/6/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	7/9/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	8/23/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	9/5/2019	8/31/2020
tblConstructionPhase	PhaseEndDate	7/23/2020	11/30/2021
tblConstructionPhase	PhaseStartDate	7/24/2020	9/1/2021
tblConstructionPhase	PhaseStartDate	9/6/2019	9/1/2020
tblConstructionPhase	PhaseStartDate	7/29/2019	6/1/2020
tblConstructionPhase	PhaseStartDate	8/29/2019	7/1/2020
tblConstructionPhase	PhaseStartDate	7/10/2020	9/1/2021
tblFireplaces	NumberGas	45.10	0.00
tblFireplaces	NumberNoFireplace	8.20	82.00
tblFireplaces	NumberWood	28.70	0.00

tblGrading	AcresOfGrading	22.00	2.20
tblGrading	MaterialExported	0.00	12,985.40
tblLandUse	LandUseSquareFeet	82,000.00	60,277.00
tblLandUse	LotAcreage	5.13	1.74
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	720.49	556.42
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	4.10	0.00
tblWoodstoves	NumberNoncatalytic	4.10	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.5712	31.6565	17.0840	0.0503	6.8433	1.1536	7.8668	3.5207	1.0771	4.4636	0.0000	5,239.3584	5,239.3584	0.9264	0.0000	5,262.5192
2021	11.1245	29.5335	30.9348	0.0565	0.8467	1.5016	2.3483	0.2263	1.4215	1.6477	0.0000	5,365.5559	5,365.5559	1.0561	0.0000	5,391.9571
Maximum	**11.1245**	**31.6565**	**30.9348**	**0.0565**	**6.8433**	**1.5016**	**7.8668**	**3.5207**	**1.4215**	**4.4636**	**0.0000**	**5,365.5559**	**5,365.5559**	**1.0561**	**0.0000**	**5,391.9571**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.5712	31.6565	17.0840	0.0503	3.1122	1.1536	4.1357	1.4941	1.0771	2.4370	0.0000	5,239.3584	5,239.3584	0.9264	0.0000	5,262.5192
2021	11.1245	29.5335	30.9348	0.0565	0.8467	1.5016	2.3483	0.2263	1.4215	1.6477	0.0000	5,365.5558	5,365.5558	1.0561	0.0000	5,391.9571
Maximum	**11.1245**	**31.6565**	**30.9348**	**0.0565**	**3.1122**	**1.5016**	**4.1357**	**1.4941**	**1.4215**	**2.4370**	**0.0000**	**5,365.5558**	**5,365.5558**	**1.0561**	**0.0000**	**5,391.9571**

	ROG	NOx	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**	**48.52**	**0.00**	**36.53**	**54.09**	**0.00**	**33.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Energy	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Mobile	0.3628	1.4832	4.2923	0.0148	1.2412	0.0120	1.2532	0.3317	0.0112	0.3430		1,499.6122	1,499.6122	0.0767		1,501.5306
Total	**2.0144**	**1.7153**	**11.1417**	**0.0161**	**1.2412**	**0.0618**	**1.3030**	**0.3317**	**0.0611**	**0.3928**	**0.0000**	**1,708.1460**	**1,708.1460**	**0.0923**	**3.6000e-003**	**1,711.5270**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Energy	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Mobile	0.3628	1.4832	4.2923	0.0148	1.2412	0.0120	1.2532	0.3317	0.0112	0.3430		1,499.6122	1,499.6122	0.0767		1,501.5306
Total	**2.0144**	**1.7153**	**11.1417**	**0.0161**	**1.2412**	**0.0618**	**1.3030**	**0.3317**	**0.0611**	**0.3928**	**0.0000**	**1,708.1460**	**1,708.1460**	**0.0923**	**3.6000e-003**	**1,711.5270**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	6/30/2020	5	22	
2	Grading	Grading	7/1/2020	8/31/2020	5	44	
3	Building Construction	Building Construction	9/1/2020	11/30/2021	5	326	
4	Paving	Paving	9/1/2021	11/30/2021	5	65	
5	Architectural Coating	Architectural Coating	9/1/2021	11/30/2021	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.2

Acres of Paving: 0.36

Residential Indoor: 122,061; Residential Outdoor: 40,687; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,623.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0786	0.0000	0.0786	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.0786**	**1.1525**	**1.2310**	**0.0119**	**1.0761**	**1.0880**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.8700e-003	0.1014	0.0230	2.8000e-004	6.3500e-003	3.2000e-004	6.6800e-003	1.7400e-003	3.1000e-004	2.0500e-003		31.1392	31.1392	2.7400e-003		31.2077
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0321	0.3685	1.1000e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		109.5571	109.5571	3.2700e-003		109.6389
Total	**0.0506**	**0.1336**	**0.3915**	**1.3800e-003**	**0.1131**	**1.0700e-003**	**0.1142**	**0.0301**	**1.0000e-003**	**0.0311**		**140.6963**	**140.6963**	**6.0100e-003**		**140.8466**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0306	0.0000	0.0306	4.6400e-003	0.0000	4.6400e-003			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.0306**	**1.1525**	**1.1831**	**4.6400e-003**	**1.0761**	**1.0808**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.8700e-003	0.1014	0.0230	2.8000e-004	6.3500e-003	3.2000e-004	6.6800e-003	1.7400e-003	3.1000e-004	2.0500e-003		31.1392	31.1392	2.7400e-003		31.2077
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0477	0.0321	0.3685	1.1000e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		109.5571	109.5571	3.2700e-003		109.6389
Total	**0.0506**	**0.1336**	**0.3915**	**1.3800e-003**	**0.1131**	**1.0700e-003**	**0.1142**	**0.0301**	**1.0000e-003**	**0.0311**		**140.6963**	**140.6963**	**6.0100e-003**		**140.8466**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					6.1166	0.0000	6.1166	3.3222	0.0000	3.3222			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.1166**	**0.9902**	**7.1067**	**3.3222**	**0.9110**	**4.2332**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2916	10.2900	2.3363	0.0289	0.6445	0.0328	0.6774	0.1766	0.0314	0.2081		3,158.6776	3,158.6776	0.2782		3,165.6335
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	**0.3283**	**10.3147**	**2.6198**	**0.0297**	**0.7267**	**0.0334**	**0.7601**	**0.1984**	**0.0319**	**0.2304**		**3,242.9524**	**3,242.9524**	**0.2808**		**3,249.9711**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3855	0.0000	2.3855	1.2957	0.0000	1.2957			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.3855**	**0.9902**	**3.3756**	**1.2957**	**0.9110**	**2.2066**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2916	10.2900	2.3363	0.0289	0.6445	0.0328	0.6774	0.1766	0.0314	0.2081		3,158.6776	3,158.6776	0.2782		3,165.6335
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0367	0.0247	0.2835	8.5000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		84.2747	84.2747	2.5200e-003		84.3376
Total	**0.3283**	**10.3147**	**2.6198**	**0.0297**	**0.7267**	**0.0334**	**0.7601**	**0.1984**	**0.0319**	**0.2304**		**3,242.9524**	**3,242.9524**	**0.2808**		**3,249.9711**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0411	1.2403	0.3160	3.0100e-003	0.0745	6.0700e-003	0.0805	0.0214	5.8000e-003	0.0272		323.4441	323.4441	0.0239		324.0406
Worker	0.2422	0.1632	1.8708	5.5800e-003	0.5422	3.8000e-003	0.5460	0.1438	3.5100e-003	0.1473		556.2131	556.2131	0.0166		556.6283
Total	**0.2833**	**1.4035**	**2.1868**	**8.5900e-003**	**0.6166**	**9.8700e-003**	**0.6265**	**0.1653**	**9.3100e-003**	**0.1746**		**879.6572**	**879.6572**	**0.0405**		**880.6689**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0411	1.2403	0.3160	3.0100e-003	0.0745	6.0700e-003	0.0805	0.0214	5.8000e-003	0.0272		323.4441	323.4441	0.0239		324.0406
Worker	0.2422	0.1632	1.8708	5.5800e-003	0.5422	3.8000e-003	0.5460	0.1438	3.5100e-003	0.1473		556.2131	556.2131	0.0166		556.6283
Total	**0.2833**	**1.4035**	**2.1868**	**8.5900e-003**	**0.6166**	**9.8700e-003**	**0.6265**	**0.1653**	**9.3100e-003**	**0.1746**		**879.6572**	**879.6572**	**0.0405**		**880.6689**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0333	1.1201	0.2855	2.9800e-003	0.0745	2.3500e-003	0.0768	0.0214	2.2500e-003	0.0237		320.4871	320.4871	0.0229		321.0596
Worker	0.2283	0.1483	1.7506	5.3900e-003	0.5422	3.7500e-003	0.5459	0.1438	3.4500e-003	0.1473		537.5310	537.5310	0.0153		537.9145
Total	**0.2616**	**1.2684**	**2.0360**	**8.3700e-003**	**0.6166**	**6.1000e-003**	**0.6227**	**0.1653**	**5.7000e-003**	**0.1710**		**858.0181**	**858.0181**	**0.0382**		**858.9741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0333	1.1201	0.2855	2.9800e-003	0.0745	2.3500e-003	0.0768	0.0214	2.2500e-003	0.0237		320.4871	320.4871	0.0229		321.0596
Worker	0.2283	0.1483	1.7506	5.3900e-003	0.5422	3.7500e-003	0.5459	0.1438	3.4500e-003	0.1473		537.5310	537.5310	0.0153		537.9145
Total	**0.2616**	**1.2684**	**2.0360**	**8.3700e-003**	**0.6166**	**6.1000e-003**	**0.6227**	**0.1653**	**5.7000e-003**	**0.1710**		**858.0181**	**858.0181**	**0.0382**		**858.9741**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0633	10.6478	11.7756	0.0178		0.5826	0.5826		0.5371	0.5371		1,709.1107	1,709.1107	0.5417		1,722.6524
Paving	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0778**	**10.6478**	**11.7756**	**0.0178**		**0.5826**	**0.5826**		**0.5371**	**0.5371**		**1,709.1107**	**1,709.1107**	**0.5417**		**1,722.6524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	**0.0519**	**0.0337**	**0.3979**	**1.2300e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**122.1661**	**122.1661**	**3.4900e-003**		**122.2533**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0633	10.6478	11.7756	0.0178		0.5826	0.5826		0.5371	0.5371	0.0000	1,709.1107	1,709.1107	0.5417		1,722.6524

Paving	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0778**	**10.6478**	**11.7756**	**0.0178**		**0.5826**	**0.5826**		**0.5371**	**0.5371**	**0.0000**	**1,709.1107**	**1,709.1107**	**0.5417**		**1,722.6524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0519	0.0337	0.3979	1.2300e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		122.1661	122.1661	3.4900e-003		122.2533
Total	**0.0519**	**0.0337**	**0.3979**	**1.2300e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**122.1661**	**122.1661**	**3.4900e-003**		**122.2533**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**7.6433**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0450**	**0.0292**	**0.3448**	**1.0600e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**105.8773**	**105.8773**	**3.0200e-003**		**105.9529**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**7.6433**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0450	0.0292	0.3448	1.0600e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		105.8773	105.8773	3.0200e-003		105.9529
Total	**0.0450**	**0.0292**	**0.3448**	**1.0600e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**105.8773**	**105.8773**	**3.0200e-003**		**105.9529**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Mitigated	0.3628	1.4832	4.2923	0.0148	1.2412	0.0120	1.2532	0.3317	0.0112	0.3430		1,499.6122	1,499.6122	0.0767		1,501.5306
Unmitigated	0.3628	1.4832	4.2923	0.0148	1.2412	0.0120	1.2532	0.3317	0.0112	0.3430		1,499.6122	1,499.6122	0.0767		1,501.5306

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	205.00	205.00	205.00	585,337	585,337
Parking Lot	0.00	0.00	0.00		
Total	205.00	205.00	205.00	585,337	585,337

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
NaturalGas Unmitigated	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1668.92	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1538**	**0.0655**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**196.3438**	**196.3438**	**3.7600e-003**	**3.6000e-003**	**197.5106**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.66892	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1538**	**0.0655**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**196.3438**	**196.3438**	**3.7600e-003**	**3.6000e-003**	**197.5106**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Unmitigated	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2956					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	0.2058	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374		12.1900	12.1900	0.0118		12.4857
Total	**1.6336**	**0.0783**	**6.7839**	**3.6000e-004**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**12.1900**	**12.1900**	**0.0118**	**0.0000**	**12.4857**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2956					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	0.2058	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374		12.1900	12.1900	0.0118		12.4857
Total	**1.6336**	**0.0783**	**6.7839**	**3.6000e-004**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**12.1900**	**12.1900**	**0.0118**	**0.0000**	**12.4857**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Apollo Senior Care - San Diego Air Basin, Winter

Apollo Senior Care

San Diego Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	82.00	Dwelling Unit	1.74	60,277.00	235
Parking Lot	40.00	Space	0.36	16,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.42	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 33% RPS

Land Use - Project description

Construction Phase - Construction schedule

Grading - Export

Demolition -

Architectural Coating - Rule 67.0.1 coatings

Vehicle Trips - Traffic analysis

Woodstoves - No fireplaces

Area Coating - Rule 67.0.1 coatings

Energy Use -

Land Use Change - On site conditions

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	NumDays	220.00	326.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/6/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	7/9/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	8/23/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	9/5/2019	8/31/2020
tblConstructionPhase	PhaseEndDate	7/23/2020	11/30/2021
tblConstructionPhase	PhaseStartDate	7/24/2020	9/1/2021
tblConstructionPhase	PhaseStartDate	9/6/2019	9/1/2020
tblConstructionPhase	PhaseStartDate	7/29/2019	6/1/2020
tblConstructionPhase	PhaseStartDate	8/29/2019	7/1/2020
tblConstructionPhase	PhaseStartDate	7/10/2020	9/1/2021
tblFireplaces	NumberGas	45.10	0.00
tblFireplaces	NumberNoFireplace	8.20	82.00
tblFireplaces	NumberWood	28.70	0.00

tblGrading	AcresOfGrading	22.00	2.20
tblGrading	MaterialExported	0.00	12,985.40
tblLandUse	LandUseSquareFeet	82,000.00	60,277.00
tblLandUse	LotAcreage	5.13	1.74
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	720.49	556.42
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	4.10	0.00
tblWoodstoves	NumberNoncatalytic	4.10	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.6052	31.7585	17.0117	0.0498	6.8433	1.1536	7.8675	3.5207	1.0771	4.4642	0.0000	5,180.0063	5,180.0063	0.9358	0.0000	5,203.4019
2021	11.1699	29.5564	30.8176	0.0559	0.8467	1.5017	2.3484	0.2263	1.4216	1.6478	0.0000	5,310.3702	5,310.3702	1.0563	0.0000	5,336.7770
Maximum	**11.1699**	**31.7585**	**30.8176**	**0.0559**	**6.8433**	**1.5017**	**7.8675**	**3.5207**	**1.4216**	**4.4642**	**0.0000**	**5,310.3702**	**5,310.3702**	**1.0563**	**0.0000**	**5,336.7770**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.6052	31.7585	17.0117	0.0498	3.1122	1.1536	4.1364	1.4941	1.0771	2.4376	0.0000	5,180.0063	5,180.0063	0.9358	0.0000	5,203.4019
2021	11.1699	29.5564	30.8176	0.0559	0.8467	1.5017	2.3484	0.2263	1.4216	1.6478	0.0000	5,310.3702	5,310.3702	1.0563	0.0000	5,336.7770
Maximum	**11.1699**	**31.7585**	**30.8176**	**0.0559**	**3.1122**	**1.5017**	**4.1364**	**1.4941**	**1.4216**	**2.4376**	**0.0000**	**5,310.3702**	**5,310.3702**	**1.0563**	**0.0000**	**5,336.7770**

	ROG	NOx	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**	**48.52**	**0.00**	**36.52**	**54.09**	**0.00**	**33.16**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Energy	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Mobile	0.3523	1.5268	4.2121	0.0140	1.2412	0.0121	1.2533	0.3317	0.0113	0.3430		1,422.2849	1,422.2849	0.0770		1,424.2088
Total	**2.0039**	**1.7589**	**11.0615**	**0.0153**	**1.2412**	**0.0619**	**1.3031**	**0.3317**	**0.0611**	**0.3929**	**0.0000**	**1,630.8187**	**1,630.8187**	**0.0926**	**3.6000e-003**	**1,634.2051**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Energy	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Mobile	0.3523	1.5268	4.2121	0.0140	1.2412	0.0121	1.2533	0.3317	0.0113	0.3430		1,422.2849	1,422.2849	0.0770		1,424.2088
Total	**2.0039**	**1.7589**	**11.0615**	**0.0153**	**1.2412**	**0.0619**	**1.3031**	**0.3317**	**0.0611**	**0.3929**	**0.0000**	**1,630.8187**	**1,630.8187**	**0.0926**	**3.6000e-003**	**1,634.2051**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	6/30/2020	5	22	
2	Grading	Grading	7/1/2020	8/31/2020	5	44	
3	Building Construction	Building Construction	9/1/2020	11/30/2021	5	326	
4	Paving	Paving	9/1/2021	11/30/2021	5	65	
5	Architectural Coating	Architectural Coating	9/1/2021	11/30/2021	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.2

Acres of Paving: 0.36

Residential Indoor: 122,061; Residential Outdoor: 40,687; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,623.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0786	0.0000	0.0786	0.0119	0.0000	0.0119			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.0786**	**1.1525**	**1.2310**	**0.0119**	**1.0761**	**1.0880**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9500e-003	0.1024	0.0246	2.8000e-004	6.3500e-003	3.3000e-004	6.6800e-003	1.7400e-003	3.2000e-004	2.0600e-003		30.6049	30.6049	2.8400e-003		30.6759
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0361	0.3474	1.0300e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		102.8472	102.8472	3.1000e-003		102.9246
Total	**0.0570**	**0.1385**	**0.3720**	**1.3100e-003**	**0.1131**	**1.0800e-003**	**0.1142**	**0.0301**	**1.0100e-003**	**0.0311**		**133.4521**	**133.4521**	**5.9400e-003**		**133.6004**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0306	0.0000	0.0306	4.6400e-003	0.0000	4.6400e-003			0.0000			0.0000
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**	**0.0306**	**1.1525**	**1.1831**	**4.6400e-003**	**1.0761**	**1.0808**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.9500e-003	0.1024	0.0246	2.8000e-004	6.3500e-003	3.3000e-004	6.6800e-003	1.7400e-003	3.2000e-004	2.0600e-003		30.6049	30.6049	2.8400e-003		30.6759
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0540	0.0361	0.3474	1.0300e-003	0.1068	7.5000e-004	0.1075	0.0283	6.9000e-004	0.0290		102.8472	102.8472	3.1000e-003		102.9246
Total	**0.0570**	**0.1385**	**0.3720**	**1.3100e-003**	**0.1131**	**1.0800e-003**	**0.1142**	**0.0301**	**1.0100e-003**	**0.0311**		**133.4521**	**133.4521**	**5.9400e-003**		**133.6004**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					6.1166	0.0000	6.1166	3.3222	0.0000	3.3222			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110		1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**6.1166**	**0.9902**	**7.1067**	**3.3222**	**0.9110**	**4.2332**		**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2996	10.3890	2.4907	0.0284	0.6445	0.0335	0.6781	0.1766	0.0321	0.2087		3,104.4870	3,104.4870	0.2878		3,111.6811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.3412**	**10.4167**	**2.7579**	**0.0292**	**0.7267**	**0.0341**	**0.7608**	**0.1984**	**0.0326**	**0.2310**		**3,183.6002**	**3,183.6002**	**0.2901**		**3,190.8539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3855	0.0000	2.3855	1.2957	0.0000	1.2957			0.0000			0.0000
Off-Road	1.9219	21.3418	9.9355	0.0206		0.9902	0.9902		0.9110	0.9110	0.0000	1,996.4061	1,996.4061	0.6457		2,012.5480
Total	**1.9219**	**21.3418**	**9.9355**	**0.0206**	**2.3855**	**0.9902**	**3.3756**	**1.2957**	**0.9110**	**2.2066**	**0.0000**	**1,996.4061**	**1,996.4061**	**0.6457**		**2,012.5480**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2996	10.3890	2.4907	0.0284	0.6445	0.0335	0.6781	0.1766	0.0321	0.2087		3,104.4870	3,104.4870	0.2878		3,111.6811
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0416	0.0278	0.2673	7.9000e-004	0.0822	5.8000e-004	0.0827	0.0218	5.3000e-004	0.0223		79.1132	79.1132	2.3800e-003		79.1727
Total	**0.3412**	**10.4167**	**2.7579**	**0.0292**	**0.7267**	**0.0341**	**0.7608**	**0.1984**	**0.0326**	**0.2310**		**3,183.6002**	**3,183.6002**	**0.2901**		**3,190.8539**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089		2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**		**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0431	1.2393	0.3507	2.9300e-003	0.0745	6.1800e-003	0.0807	0.0214	5.9100e-003	0.0274		315.1084	315.1084	0.0254		315.7423
Worker	0.2743	0.1832	1.7638	5.2400e-003	0.5422	3.8000e-003	0.5460	0.1438	3.5100e-003	0.1473		522.1471	522.1471	0.0157		522.5401
Total	**0.3174**	**1.4226**	**2.1145**	**8.1700e-003**	**0.6166**	**9.9800e-003**	**0.6266**	**0.1653**	**9.4200e-003**	**0.1747**		**837.2555**	**837.2555**	**0.0411**		**838.2824**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2879	17.4336	14.8972	0.0250		0.9482	0.9482		0.9089	0.9089	0.0000	2,288.8877	2,288.8877	0.4646		2,300.5014
Total	**2.2879**	**17.4336**	**14.8972**	**0.0250**		**0.9482**	**0.9482**		**0.9089**	**0.9089**	**0.0000**	**2,288.8877**	**2,288.8877**	**0.4646**		**2,300.5014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0431	1.2393	0.3507	2.9300e-003	0.0745	6.1800e-003	0.0807	0.0214	5.9100e-003	0.0274		315.1084	315.1084	0.0254		315.7423
Worker	0.2743	0.1832	1.7638	5.2400e-003	0.5422	3.8000e-003	0.5460	0.1438	3.5100e-003	0.1473		522.1471	522.1471	0.0157		522.5401
Total	**0.3174**	**1.4226**	**2.1145**	**8.1700e-003**	**0.6166**	**9.9800e-003**	**0.6266**	**0.1653**	**9.4200e-003**	**0.1747**		**837.2555**	**837.2555**	**0.0411**		**838.2824**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831		2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**		**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0351	1.1171	0.3178	2.9000e-003	0.0745	2.4500e-003	0.0769	0.0214	2.3400e-003	0.0238		312.2012	312.2012	0.0243		312.8093
Worker	0.2589	0.1665	1.6455	5.0600e-003	0.5422	3.7500e-003	0.5459	0.1438	3.4500e-003	0.1473		504.6014	504.6014	0.0145		504.9638
Total	**0.2939**	**1.2836**	**1.9634**	**7.9600e-003**	**0.6166**	**6.2000e-003**	**0.6228**	**0.1653**	**5.7900e-003**	**0.1710**		**816.8026**	**816.8026**	**0.0388**		**817.7731**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0451	16.0275	14.5629	0.0250		0.8173	0.8173		0.7831	0.7831	0.0000	2,288.9355	2,288.9355	0.4503		2,300.1935
Total	**2.0451**	**16.0275**	**14.5629**	**0.0250**		**0.8173**	**0.8173**		**0.7831**	**0.7831**	**0.0000**	**2,288.9355**	**2,288.9355**	**0.4503**		**2,300.1935**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0351	1.1171	0.3178	2.9000e-003	0.0745	2.4500e-003	0.0769	0.0214	2.3400e-003	0.0238		312.2012	312.2012	0.0243		312.8093
Worker	0.2589	0.1665	1.6455	5.0600e-003	0.5422	3.7500e-003	0.5459	0.1438	3.4500e-003	0.1473		504.6014	504.6014	0.0145		504.9638
Total	**0.2939**	**1.2836**	**1.9634**	**7.9600e-003**	**0.6166**	**6.2000e-003**	**0.6228**	**0.1653**	**5.7900e-003**	**0.1710**		**816.8026**	**816.8026**	**0.0388**		**817.7731**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0633	10.6478	11.7756	0.0178		0.5826	0.5826		0.5371	0.5371		1,709.1107	1,709.1107	0.5417		1,722.6524
Paving	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0778**	**10.6478**	**11.7756**	**0.0178**		**0.5826**	**0.5826**		**0.5371**	**0.5371**		**1,709.1107**	**1,709.1107**	**0.5417**		**1,722.6524**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0633	10.6478	11.7756	0.0178		0.5826	0.5826		0.5371	0.5371	0.0000	1,709.1107	1,709.1107	0.5417		1,722.6524

Paving	0.0145					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0778**	**10.6478**	**11.7756**	**0.0178**		**0.5826**	**0.5826**		**0.5371**	**0.5371**	**0.0000**	**1,709.1107**	**1,709.1107**	**0.5417**		**1,722.6524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0588	0.0378	0.3740	1.1500e-003	0.1232	8.5000e-004	0.1241	0.0327	7.8000e-004	0.0335		114.6821	114.6821	3.2900e-003		114.7645
Total	**0.0588**	**0.0378**	**0.3740**	**1.1500e-003**	**0.1232**	**8.5000e-004**	**0.1241**	**0.0327**	**7.8000e-004**	**0.0335**		**114.6821**	**114.6821**	**3.2900e-003**		**114.7645**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**7.6433**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0510**	**0.0328**	**0.3241**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**99.3912**	**99.3912**	**2.8600e-003**		**99.4626**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	7.4244					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	**7.6433**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**	**0.0000**	**281.4481**	**281.4481**	**0.0193**		**281.9309**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0328	0.3241	1.0000e-003	0.1068	7.4000e-004	0.1075	0.0283	6.8000e-004	0.0290		99.3912	99.3912	2.8600e-003		99.4626
Total	**0.0510**	**0.0328**	**0.3241**	**1.0000e-003**	**0.1068**	**7.4000e-004**	**0.1075**	**0.0283**	**6.8000e-004**	**0.0290**		**99.3912**	**99.3912**	**2.8600e-003**		**99.4626**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day											lb/day				
Mitigated	0.3523	1.5268	4.2121	0.0140	1.2412	0.0121	1.2533	0.3317	0.0113	0.3430		1,422.2849	1,422.2849	0.0770		1,424.2088
Unmitigated	0.3523	1.5268	4.2121	0.0140	1.2412	0.0121	1.2533	0.3317	0.0113	0.3430		1,422.2849	1,422.2849	0.0770		1,424.2088

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	205.00	205.00	205.00	585,337	585,337
Parking Lot	0.00	0.00	0.00		
Total	205.00	205.00	205.00	585,337	585,337

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted Living)	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
NaturalGas Unmitigated	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1668.92	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1538**	**0.0655**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**196.3438**	**196.3438**	**3.7600e-003**	**3.6000e-003**	**197.5106**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.66892	0.0180	0.1538	0.0655	9.8000e-004		0.0124	0.0124		0.0124	0.0124		196.3438	196.3438	3.7600e-003	3.6000e-003	197.5106
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0180**	**0.1538**	**0.0655**	**9.8000e-004**		**0.0124**	**0.0124**		**0.0124**	**0.0124**		**196.3438**	**196.3438**	**3.7600e-003**	**3.6000e-003**	**197.5106**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857
Unmitigated	1.6336	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374	0.0000	12.1900	12.1900	0.0118	0.0000	12.4857

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2956					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	0.2058	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374		12.1900	12.1900	0.0118		12.4857
Total	**1.6336**	**0.0783**	**6.7839**	**3.6000e-004**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**12.1900**	**12.1900**	**0.0118**	**0.0000**	**12.4857**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1322					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.2956					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	0.2058	0.0783	6.7839	3.6000e-004		0.0374	0.0374		0.0374	0.0374		12.1900	12.1900	0.0118		12.4857
Total	**1.6336**	**0.0783**	**6.7839**	**3.6000e-004**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**12.1900**	**12.1900**	**0.0118**	**0.0000**	**12.4857**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Apollo Senior Care - San Diego Air Basin, Annual

Apollo Senior Care

San Diego Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	82.00	Dwelling Unit	1.74	60,277.00	235
Parking Lot	40.00	Space	0.36	16,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2021
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	556.42	**CH4 Intensity (lb/MWhr)**	0.022	**N2O Intensity (lb/MWhr)**	0.005

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 33% RPS

Land Use - Project description

Construction Phase - Construction schedule

Grading - Export

Demolition -

Architectural Coating - Rule 67.0.1 coatings

Vehicle Trips - Traffic analysis

Woodstoves - No fireplaces

Area Coating - Rule 67.0.1 coatings

Energy Use -

Land Use Change - On site conditions

Construction Off-road Equipment Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	100.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	250	100
tblAreaCoating	Area_EF_Residential_Interior	250	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	NumDays	220.00	326.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	6.00	44.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	PhaseEndDate	8/6/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	7/9/2020	11/30/2021
tblConstructionPhase	PhaseEndDate	8/23/2019	6/30/2020
tblConstructionPhase	PhaseEndDate	9/5/2019	8/31/2020
tblConstructionPhase	PhaseEndDate	7/23/2020	11/30/2021
tblConstructionPhase	PhaseStartDate	7/24/2020	9/1/2021
tblConstructionPhase	PhaseStartDate	9/6/2019	9/1/2020
tblConstructionPhase	PhaseStartDate	7/29/2019	6/1/2020
tblConstructionPhase	PhaseStartDate	8/29/2019	7/1/2020
tblConstructionPhase	PhaseStartDate	7/10/2020	9/1/2021
tblFireplaces	NumberGas	45.10	0.00
tblFireplaces	NumberNoFireplace	8.20	82.00
tblFireplaces	NumberWood	28.70	0.00

tblGrading	AcresOfGrading	22.00	2.20
tblGrading	MaterialExported	0.00	12,985.40
tblLandUse	LandUseSquareFeet	82,000.00	60,277.00
tblLandUse	LotAcreage	5.13	1.74
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.022
tblProjectCharacteristics	CO2IntensityFactor	720.49	556.42
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.005
tblVehicleTrips	ST_TR	2.20	2.50
tblVehicleTrips	SU_TR	2.44	2.50
tblVehicleTrips	WD_TR	2.74	2.50
tblWoodstoves	NumberCatalytic	4.10	0.00
tblWoodstoves	NumberNoncatalytic	4.10	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1867	1.7631	1.1905	2.8500e-003	0.1788	0.0774	0.2562	0.0849	0.0730	0.1579	0.0000	253.7303	253.7303	0.0447	0.0000	254.8488
2021	0.5613	2.4592	2.4296	4.6800e-003	0.0790	0.1200	0.1990	0.0212	0.1144	0.1356	0.0000	401.4070	401.4070	0.0695	0.0000	403.1433
Maximum	**0.5613**	**2.4592**	**2.4296**	**4.6800e-003**	**0.1788**	**0.1200**	**0.2562**	**0.0849**	**0.1144**	**0.1579**	**0.0000**	**401.4070**	**401.4070**	**0.0695**	**0.0000**	**403.1433**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1867	1.7631	1.1905	2.8500e-003	0.0962	0.0774	0.1736	0.0403	0.0730	0.1133	0.0000	253.7301	253.7301	0.0447	0.0000	254.8486
2021	0.5613	2.4592	2.4296	4.6800e-003	0.0790	0.1200	0.1990	0.0212	0.1144	0.1356	0.0000	401.4066	401.4066	0.0695	0.0000	403.1429
Maximum	**0.5613**	**2.4592**	**2.4296**	**4.6800e-003**	**0.0962**	**0.1200**	**0.1990**	**0.0403**	**0.1144**	**0.1356**	**0.0000**	**401.4066**	**401.4066**	**0.0695**	**0.0000**	**403.1429**

	ROG	NOx	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**	**32.05**	**0.00**	**18.15**	**42.08**	**0.00**	**15.21**	**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)
4	**4-29-2020**	**7-28-2020**	0.5882	0.5882
5	**7-29-2020**	**10-28-2020**	0.8557	0.8557
6	**10-29-2020**	**1-28-2021**	0.6870	0.6870
7	**1-29-2021**	**4-28-2021**	0.6311	0.6311
8	**4-29-2021**	**7-28-2021**	0.6371	0.6371
9	**7-29-2021**	**9-30-2021**	0.6737	0.6737
		Highest	0.8557	0.8557

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2791	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194

Energy	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	116.8055	116.8055	3.9600e-003	1.3500e-003	117.3078
Mobile	0.0626	0.2787	0.7585	2.5700e-003	0.2206	2.1900e-003	0.2228	0.0591	2.0400e-003	0.0611	0.0000	237.0156	237.0156	0.0126	0.0000	237.3301
Waste						0.0000	0.0000		0.0000	0.0000	15.1898	0.0000	15.1898	0.8977	0.0000	37.6321
Water						0.0000	0.0000		0.0000	0.0000	1.6950	27.0022	28.6972	0.1752	4.3500e-003	34.3734
Total	**0.3450**	**0.3138**	**1.3810**	**2.7800e-003**	**0.2206**	**7.8200e-003**	**0.2284**	**0.0591**	**7.6700e-003**	**0.0668**	**16.8848**	**381.8186**	**398.7034**	**1.0904**	**5.7000e-003**	**427.6628**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2791	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194
Energy	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	116.8055	116.8055	3.9600e-003	1.3500e-003	117.3078
Mobile	0.0626	0.2787	0.7585	2.5700e-003	0.2206	2.1900e-003	0.2228	0.0591	2.0400e-003	0.0611	0.0000	237.0156	237.0156	0.0126	0.0000	237.3301
Waste						0.0000	0.0000		0.0000	0.0000	7.5949	0.0000	7.5949	0.4489	0.0000	18.8161
Water						0.0000	0.0000		0.0000	0.0000	1.3560	22.9145	24.2705	0.1402	3.4900e-003	28.8163
Total	**0.3450**	**0.3138**	**1.3810**	**2.7800e-003**	**0.2206**	**7.8200e-003**	**0.2284**	**0.0591**	**7.6700e-003**	**0.0668**	**8.9509**	**377.7310**	**386.6819**	**0.6065**	**4.8400e-003**	**403.2896**

	ROG	NOx	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**	**46.99**	**1.07**	**3.02**	**44.37**	**15.09**	**5.70**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
Vegetation Land Change	0.0000
Total	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2020	6/30/2020	5	22	
2	Grading	Grading	7/1/2020	8/31/2020	5	44	
3	Building Construction	Building Construction	9/1/2020	11/30/2021	5	326	
4	Paving	Paving	9/1/2021	11/30/2021	5	65	
5	Architectural Coating	Architectural Coating	9/1/2021	11/30/2021	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.2

Acres of Paving: 0.36

Residential Indoor: 122,061; Residential Outdoor: 40,687; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73

Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	8.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	1,623.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	66.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					8.6000e-004	0.0000	8.6000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0234	0.2304	0.1612	2.7000e-004		0.0127	0.0127		0.0118	0.0118	0.0000	23.1744	23.1744	5.9600e-003	0.0000	23.3234
Total	**0.0234**	**0.2304**	**0.1612**	**2.7000e-004**	**8.6000e-004**	**0.0127**	**0.0135**	**1.3000e-004**	**0.0118**	**0.0120**	**0.0000**	**23.1744**	**23.1744**	**5.9600e-003**	**0.0000**	**23.3234**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1400e-003	2.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3085	0.3085	3.0000e-005	0.0000	0.3092
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.9000e-004	3.8300e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0366	1.0366	3.0000e-005	0.0000	1.0374
Total	**5.6000e-004**	**1.5300e-003**	**4.0900e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.3451**	**1.3451**	**6.0000e-005**	**0.0000**	**1.3465**

Mitigated Construction On-Site

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

Fugitive Dust					3.4000e-004	0.0000	3.4000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0234	0.2304	0.1612	2.7000e-004		0.0127	0.0127		0.0118	0.0118	0.0000	23.1744	23.1744	5.9600e-003	0.0000	23.3233
Total	**0.0234**	**0.2304**	**0.1612**	**2.7000e-004**	**3.4000e-004**	**0.0127**	**0.0130**	**5.0000e-005**	**0.0118**	**0.0119**	**0.0000**	**23.1744**	**23.1744**	**5.9600e-003**	**0.0000**	**23.3233**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-005	1.1400e-003	2.6000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.3085	0.3085	3.0000e-005	0.0000	0.3092
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.9000e-004	3.8300e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1500e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	1.0366	1.0366	3.0000e-005	0.0000	1.0374
Total	**5.6000e-004**	**1.5300e-003**	**4.0900e-003**	**1.0000e-005**	**1.2200e-003**	**1.0000e-005**	**1.2200e-003**	**3.2000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.3451**	**1.3451**	**6.0000e-005**	**0.0000**	**1.3465**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1346	0.0000	0.1346	0.0731	0.0000	0.0731	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4695	0.2186	4.5000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	39.8444	39.8444	0.0129	0.0000	40.1666
Total	**0.0423**	**0.4695**	**0.2186**	**4.5000e-004**	**0.1346**	**0.0218**	**0.1563**	**0.0731**	**0.0200**	**0.0931**	**0.0000**	**39.8444**	**39.8444**	**0.0129**	**0.0000**	**40.1666**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.4900e-003	0.2308	0.0529	6.3000e-004	0.0139	7.3000e-004	0.0146	3.8100e-003	7.0000e-004	4.5100e-003	0.0000	62.5868	62.5868	5.6400e-003	0.0000	62.7277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	6.0000e-004	5.8900e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5947	1.5947	5.0000e-005	0.0000	1.5959
Total	**7.3000e-003**	**0.2314**	**0.0588**	**6.5000e-004**	**0.0157**	**7.4000e-004**	**0.0164**	**4.2800e-003**	**7.1000e-004**	**4.9900e-003**	**0.0000**	**64.1816**	**64.1816**	**5.6900e-003**	**0.0000**	**64.3237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0525	0.0000	0.0525	0.0285	0.0000	0.0285	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0423	0.4695	0.2186	4.5000e-004		0.0218	0.0218		0.0200	0.0200	0.0000	39.8444	39.8444	0.0129	0.0000	40.1665
Total	**0.0423**	**0.4695**	**0.2186**	**4.5000e-004**	**0.0525**	**0.0218**	**0.0743**	**0.0285**	**0.0200**	**0.0485**	**0.0000**	**39.8444**	**39.8444**	**0.0129**	**0.0000**	**40.1665**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.4900e-003	0.2308	0.0529	6.3000e-004	0.0139	7.3000e-004	0.0146	3.8100e-003	7.0000e-004	4.5100e-003	0.0000	62.5868	62.5868	5.6400e-003	0.0000	62.7277
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	6.0000e-004	5.8900e-003	2.0000e-005	1.7600e-003	1.0000e-005	1.7800e-003	4.7000e-004	1.0000e-005	4.8000e-004	0.0000	1.5947	1.5947	5.0000e-005	0.0000	1.5959
Total	**7.3000e-003**	**0.2314**	**0.0588**	**6.5000e-004**	**0.0157**	**7.4000e-004**	**0.0164**	**4.2800e-003**	**7.1000e-004**	**4.9900e-003**	**0.0000**	**64.1816**	**64.1816**	**5.6900e-003**	**0.0000**	**64.3237**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1007	0.7671	0.6555	1.1000e-003		0.0417	0.0417		0.0400	0.0400	0.0000	91.3635	91.3635	0.0185	0.0000	91.8271
Total	**0.1007**	**0.7671**	**0.6555**	**1.1000e-003**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**91.3635**	**91.3635**	**0.0185**	**0.0000**	**91.8271**

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	1.8400e-003	0.0552	0.0147	1.3000e-004	3.2100e-003	2.7000e-004	3.4800e-003	9.3000e-004	2.6000e-004	1.1800e-003	0.0000	12.7709	12.7709	9.8000e-004	0.0000	12.7954
Worker	0.0107	7.9300e-003	0.0777	2.3000e-004	0.0233	1.7000e-004	0.0235	6.1900e-003	1.5000e-004	6.3400e-003	0.0000	21.0504	21.0504	6.3000e-004	0.0000	21.0662
Total	**0.0125**	**0.0631**	**0.0924**	**3.6000e-004**	**0.0265**	**4.4000e-004**	**0.0269**	**7.1200e-003**	**4.1000e-004**	**7.5200e-003**	**0.0000**	**33.8213**	**33.8213**	**1.6100e-003**	**0.0000**	**33.8616**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1007	0.7671	0.6555	1.1000e-003		0.0417	0.0417		0.0400	0.0400	0.0000	91.3634	91.3634	0.0185	0.0000	91.8270
Total	**0.1007**	**0.7671**	**0.6555**	**1.1000e-003**		**0.0417**	**0.0417**		**0.0400**	**0.0400**	**0.0000**	**91.3634**	**91.3634**	**0.0185**	**0.0000**	**91.8270**

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	1.8400e-003	0.0552	0.0147	1.3000e-004	3.2100e-003	2.7000e-004	3.4800e-003	9.3000e-004	2.6000e-004	1.1800e-003	0.0000	12.7709	12.7709	9.8000e-004	0.0000	12.7954
Worker	0.0107	7.9300e-003	0.0777	2.3000e-004	0.0233	1.7000e-004	0.0235	6.1900e-003	1.5000e-004	6.3400e-003	0.0000	21.0504	21.0504	6.3000e-004	0.0000	21.0662
Total	**0.0125**	**0.0631**	**0.0924**	**3.6000e-004**	**0.0265**	**4.4000e-004**	**0.0269**	**7.1200e-003**	**4.1000e-004**	**7.5200e-003**	**0.0000**	**33.8213**	**33.8213**	**1.6100e-003**	**0.0000**	**33.8616**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2434	1.9073	1.7330	2.9800e-003		0.0973	0.0973		0.0932	0.0932	0.0000	247.1020	247.1020	0.0486	0.0000	248.3174
Total	**0.2434**	**1.9073**	**1.7330**	**2.9800e-003**		**0.0973**	**0.0973**		**0.0932**	**0.0932**	**0.0000**	**247.1020**	**247.1020**	**0.0486**	**0.0000**	**248.3174**

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	4.0500e-003	0.1345	0.0359	3.5000e-004	8.6900e-003	2.8000e-004	8.9700e-003	2.5100e-003	2.7000e-004	2.7800e-003	0.0000	34.2225	34.2225	2.5400e-003	0.0000	34.2860
Worker	0.0273	0.0195	0.1962	6.1000e-004	0.0630	4.5000e-004	0.0634	0.0167	4.1000e-004	0.0172	0.0000	55.0191	55.0191	1.5800e-003	0.0000	55.0585
Total	**0.0314**	**0.1540**	**0.2321**	**9.6000e-004**	**0.0717**	**7.3000e-004**	**0.0724**	**0.0193**	**6.8000e-004**	**0.0199**	**0.0000**	**89.2416**	**89.2416**	**4.1200e-003**	**0.0000**	**89.3445**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2434	1.9073	1.7330	2.9800e-003		0.0973	0.0973		0.0932	0.0932	0.0000	247.1017	247.1017	0.0486	0.0000	248.3171
Total	**0.2434**	**1.9073**	**1.7330**	**2.9800e-003**		**0.0973**	**0.0973**		**0.0932**	**0.0932**	**0.0000**	**247.1017**	**247.1017**	**0.0486**	**0.0000**	**248.3171**

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	4.0500e-003	0.1345	0.0359	3.5000e-004	8.6900e-003	2.8000e-004	8.9700e-003	2.5100e-003	2.7000e-004	2.7800e-003	0.0000	34.2225	34.2225	2.5400e-003	0.0000	34.2860
Worker	0.0273	0.0195	0.1962	6.1000e-004	0.0630	4.5000e-004	0.0634	0.0167	4.1000e-004	0.0172	0.0000	55.0191	55.0191	1.5800e-003	0.0000	55.0585
Total	**0.0314**	**0.1540**	**0.2321**	**9.6000e-004**	**0.0717**	**7.3000e-004**	**0.0724**	**0.0193**	**6.8000e-004**	**0.0199**	**0.0000**	**89.2416**	**89.2416**	**4.1200e-003**	**0.0000**	**89.3445**

3.5 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0346	0.3461	0.3827	5.8000e-004		0.0189	0.0189		0.0175	0.0175	0.0000	50.3906	50.3906	0.0160	0.0000	50.7898

Paving	4.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0350**	**0.3461**	**0.3827**	**5.8000e-004**		**0.0189**	**0.0189**		**0.0175**	**0.0175**	**0.0000**	**50.3906**	**50.3906**	**0.0160**	**0.0000**	**50.7898**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6900e-003	1.2100e-003	0.0122	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0600e-003	0.0000	3.4151	3.4151	1.0000e-004	0.0000	3.4175
Total	**1.6900e-003**	**1.2100e-003**	**0.0122**	**4.0000e-005**	**3.9100e-003**	**3.0000e-005**	**3.9400e-003**	**1.0400e-003**	**3.0000e-005**	**1.0600e-003**	**0.0000**	**3.4151**	**3.4151**	**1.0000e-004**	**0.0000**	**3.4175**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0346	0.3461	0.3827	5.8000e-004		0.0189	0.0189		0.0175	0.0175	0.0000	50.3905	50.3905	0.0160	0.0000	50.7898
Paving	4.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0350**	**0.3461**	**0.3827**	**5.8000e-004**		**0.0189**	**0.0189**		**0.0175**	**0.0175**	**0.0000**	**50.3905**	**50.3905**	**0.0160**	**0.0000**	**50.7898**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6900e-003	1.2100e-003	0.0122	4.0000e-005	3.9100e-003	3.0000e-005	3.9400e-003	1.0400e-003	3.0000e-005	1.0600e-003	0.0000	3.4151	3.4151	1.0000e-004	0.0000	3.4175
Total	**1.6900e-003**	**1.2100e-003**	**0.0122**	**4.0000e-005**	**3.9100e-003**	**3.0000e-005**	**3.9400e-003**	**1.0400e-003**	**3.0000e-005**	**1.0600e-003**	**0.0000**	**3.4151**	**3.4151**	**1.0000e-004**	**0.0000**	**3.4175**

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2413					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.0496	0.0591	1.0000e-004		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	8.2981	8.2981	5.7000e-004	0.0000	8.3123
Total	**0.2484**	**0.0496**	**0.0591**	**1.0000e-004**		**3.0600e-003**	**3.0600e-003**		**3.0600e-003**	**3.0600e-003**	**0.0000**	**8.2981**	**8.2981**	**5.7000e-004**	**0.0000**	**8.3123**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4700e-003	1.0500e-003	0.0106	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.9597	2.9597	8.0000e-005	0.0000	2.9618
Total	**1.4700e-003**	**1.0500e-003**	**0.0106**	**3.0000e-005**	**3.3900e-003**	**2.0000e-005**	**3.4100e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.9597**	**2.9597**	**8.0000e-005**	**0.0000**	**2.9618**

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	0.2413					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1100e-003	0.0496	0.0591	1.0000e-004		3.0600e-003	3.0600e-003		3.0600e-003	3.0600e-003	0.0000	8.2981	8.2981	5.7000e-004	0.0000	8.3123
Total	**0.2484**	**0.0496**	**0.0591**	**1.0000e-004**		**3.0600e-003**	**3.0600e-003**		**3.0600e-003**	**3.0600e-003**	**0.0000**	**8.2981**	**8.2981**	**5.7000e-004**	**0.0000**	**8.3123**

Mitigated Construction Off-Site

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

Worker	1.4700e-003	1.0500e-003	0.0106	3.0000e-005	3.3900e-003	2.0000e-005	3.4100e-003	9.0000e-004	2.0000e-005	9.2000e-004	0.0000	2.9597	2.9597	8.0000e-005	0.0000	2.9618
Total	**1.4700e-003**	**1.0500e-003**	**0.0106**	**3.0000e-005**	**3.3900e-003**	**2.0000e-005**	**3.4100e-003**	**9.0000e-004**	**2.0000e-005**	**9.2000e-004**	**0.0000**	**2.9597**	**2.9597**	**8.0000e-005**	**0.0000**	**2.9618**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0626	0.2787	0.7585	2.5700e-003	0.2206	2.1900e-003	0.2228	0.0591	2.0400e-003	0.0611	0.0000	237.0156	237.0156	0.0126	0.0000	237.3301
Unmitigated	0.0626	0.2787	0.7585	2.5700e-003	0.2206	2.1900e-003	0.2228	0.0591	2.0400e-003	0.0611	0.0000	237.0156	237.0156	0.0126	0.0000	237.3301

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	205.00	205.00	205.00	585,337	585,337
Parking Lot	0.00	0.00	0.00		
Total	205.00	205.00	205.00	585,337	585,337

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-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	7.30	7.50	41.60	18.80	39.60	86	11	3
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193
Parking Lot	0.593936	0.041843	0.182569	0.108325	0.016436	0.005513	0.015940	0.023523	0.001912	0.001972	0.006090	0.000748	0.001193

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	84.2986	84.2986	3.3300e-003	7.6000e-004	84.6077
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	84.2986	84.2986	3.3300e-003	7.6000e-004	84.6077
NaturalGas Mitigated	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	32.5069	32.5069	6.2000e-004	6.0000e-004	32.7001
NaturalGas Unmitigated	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	32.5069	32.5069	6.2000e-004	6.0000e-004	32.7001

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					

Congregate Care (Assisted Living)	609157	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	32.5069	32.5069	6.2000e-004	6.0000e-004	32.7001
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0281**	**0.0119**	**1.8000e-004**		**2.2700e-003**	**2.2700e-003**		**2.2700e-003**	**2.2700e-003**	**0.0000**	**32.5069**	**32.5069**	**6.2000e-004**	**6.0000e-004**	**32.7001**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	609157	3.2800e-003	0.0281	0.0119	1.8000e-004		2.2700e-003	2.2700e-003		2.2700e-003	2.2700e-003	0.0000	32.5069	32.5069	6.2000e-004	6.0000e-004	32.7001
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**3.2800e-003**	**0.0281**	**0.0119**	**1.8000e-004**		**2.2700e-003**	**2.2700e-003**		**2.2700e-003**	**2.2700e-003**	**0.0000**	**32.5069**	**32.5069**	**6.2000e-004**	**6.0000e-004**	**32.7001**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	328404	82.8853	3.2800e-003	7.4000e-004	83.1891
Parking Lot	5600	1.4134	6.0000e-005	1.0000e-005	1.4186
Total		**84.2986**	**3.3400e-003**	**7.5000e-004**	**84.6077**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	328404	82.8853	3.2800e-003	7.4000e-004	83.1891
Parking Lot	5600	1.4134	6.0000e-005	1.0000e-005	1.4186
Total		**84.2986**	**3.3400e-003**	**7.5000e-004**	**84.6077**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2791	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194
Unmitigated	0.2791	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2365					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	0.0185	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194
Total	**0.2791**	**7.0500e-003**	**0.6106**	**3.0000e-005**		**3.3600e-003**	**3.3600e-003**		**3.3600e-003**	**3.3600e-003**	**0.0000**	**0.9953**	**0.9953**	**9.7000e-004**	**0.0000**	**1.0194**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0241					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2365					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	0.0185	7.0500e-003	0.6106	3.0000e-005		3.3600e-003	3.3600e-003		3.3600e-003	3.3600e-003	0.0000	0.9953	0.9953	9.7000e-004	0.0000	1.0194
Total	**0.2791**	**7.0500e-003**	**0.6106**	**3.0000e-005**		**3.3600e-003**	**3.3600e-003**		**3.3600e-003**	**3.3600e-003**	**0.0000**	**0.9953**	**0.9953**	**9.7000e-004**	**0.0000**	**1.0194**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.2705	0.1402	3.4900e-003	28.8163
Unmitigated	28.6972	0.1752	4.3500e-003	34.3734

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	5.34263 / 3.36818	28.6972	0.1752	4.3500e-003	34.3734
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**28.6972**	**0.1752**	**4.3500e-003**	**34.3734**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	4.2741 / 3.16272	24.2705	0.1402	3.4900e-003	28.8163
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**24.2705**	**0.1402**	**3.4900e-003**	**28.8163**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	7.5949	0.4489	0.0000	18.8161
Unmitigated	15.1898	0.8977	0.0000	37.6321

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	74.83	15.1898	0.8977	0.0000	37.6321
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**15.1898**	**0.8977**	**0.0000**	**37.6321**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	37.415	7.5949	0.4489	0.0000	18.8161
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**7.5949**	**0.4489**	**0.0000**	**18.8161**

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

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.0000	0.0000	0.0000	0.0000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Others	2.2 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**