APPENDIX B

AIR QUALITY & NOISE ASSESSMENTS

WEDDINGTON GOLF AND SENIOR HOUSING PROJECT
AIR QUALITY AND NOISE IMPACT REPORT

environmental planners

Prepared for

PLANNING ASSOCIATES INC.

Prepared by

TERRY A. HAYES ASSOCIATES INC.

June 27, 2013

taha 2011-077

WEDDINGTON GOLF AND SENIOR HOUSING PROJECT

AIR QUALITY AND NOISE IMPACT REPORT

Prepared for

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1.0 SUMMARY OF FINDINGS

Terry A. Hayes Associates Inc. has completed an air quality and noise impact analysis for the proposed Weddington Golf and Senior Housing Project (proposed project). Key findings are listed below.

1.1 AIR QUALITY

- The proposed project would result in a less-than-significant impact related to regional construction emissions.
- Localized (i.e., on-site) particulate matter construction emissions would exceed the South Coast Air Quality Management District (SCAQMD) significance thresholds despite the implementation of Mitigation Measures **AQ1** through **AQ5**. Therefore, the proposed project would result in a significant and unavoidable impact related to localized construction emissions.
- The proposed project would result in a less-than-significant impact related to regional operational emissions.
- The proposed project would result in a less-than-significant impact related to operational carbon monoxide concentrations.
- The proposed project would result in a less-than-significant impact related to toxic air contaminant emissions.
- The proposed project would result in a less-than-significant impact related to odors.
- The proposed project would result in a less-than-significant impact related to consistency with the SCAQMD Air Quality Management Plan.
- The proposed project would result in a significant and unavoidable impact related to localized construction emissions. It is anticipated that related project development would also result in significant localized impacts. While mitigation measures would reduce air quality impacts, cumulative construction emissions would exceed SCAQMD localized significance thresholds. Therefore, the proposed project would result in a cumulatively considerable impact related to construction air quality.
- The proposed project would result in a less-than-significant impact related to greenhouse gas emissions.

1.2 NOISE AND VIBRATION

- Construction noise levels would exceed the City of Los Angeles significance thresholds at adjacent sensitive land uses despite the implementation of Mitigation Measures **N1** through **N6** would. Therefore, the proposed project would result in a significant and unavoidable impact related to construction noise.
- The proposed project would result in a less-than-significant impact related to mobile source noise levels.
- The proposed project would result in a less-than-significant impact related to stationary source noise levels.
- The proposed project would result in a less-than-significant impact related to construction and operational vibration levels.
- The proposed project would not contribute to a cumulatively considerable impact related to construction and operational vibration levels.

2.0 INTRODUCTION

2.1 PURPOSE OF REPORT

The purpose of this report is to evaluate the potential air quality and noise impacts associated with the proposed Weddington Golf and Senior Housing Project. Air quality and noise impacts have been analyzed for construction and operation of the proposed project. Mitigation measures for air quality and noise are recommended, where necessary.

2.2 PROJECT DESCRIPTION

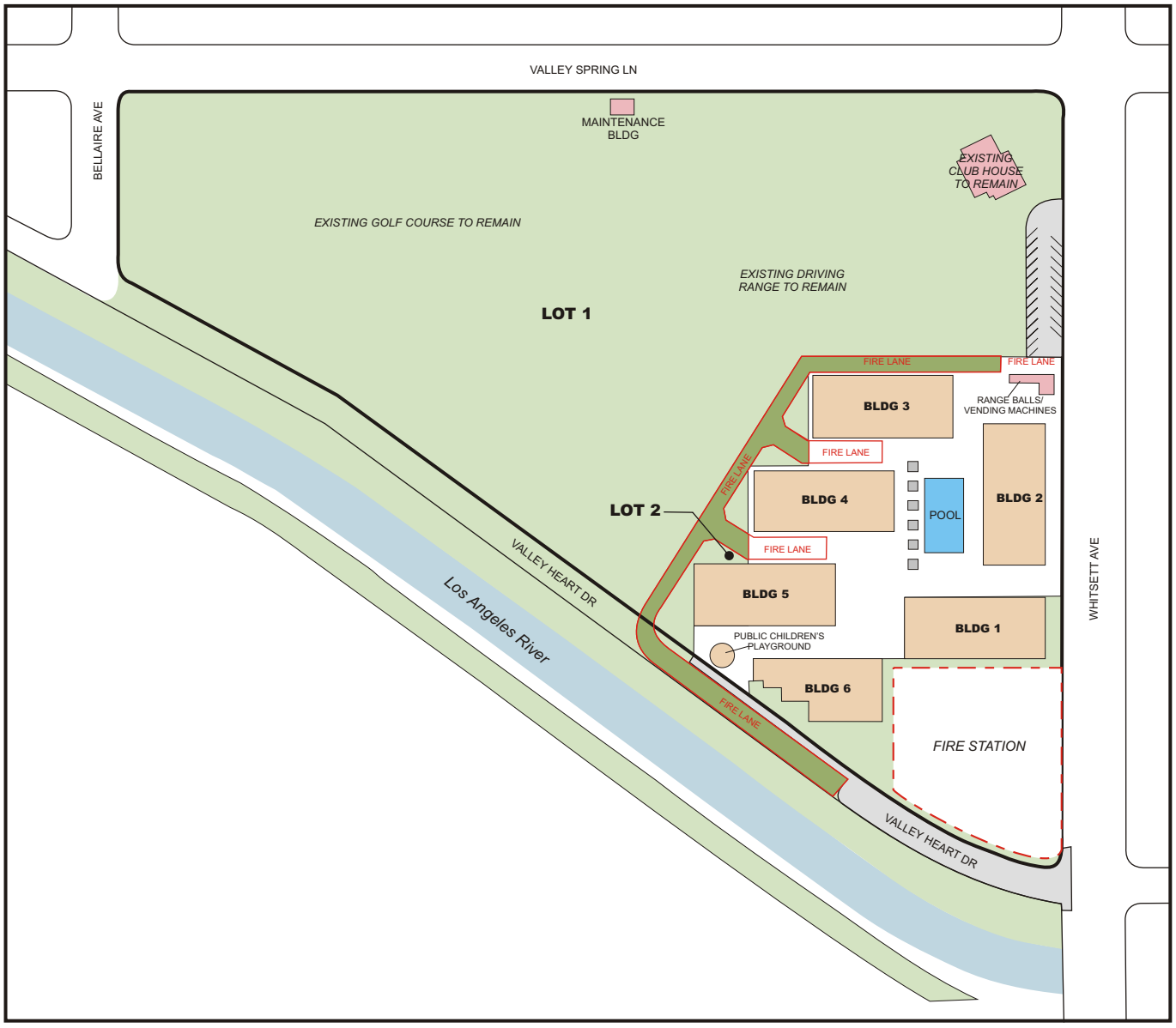
Summary

The Weddington Golf and Senior Housing Project involve the continuation of recreational uses at the Golf Course Site and the establishment of new multi-family residential uses at the Development Site. The proposed project would require subdividing the subject property into two parcels: Lots 1 and 2. Lot 1 would be 504,764 square feet (11.59 acres) and would retain, with minor alterations to accommodate the lot split, the existing nine-hole golf course, club house, driving range, and 22 surface parking spaces. Lot 2 would be 196,946 square feet (4.52 acres) and would be developed with an approximately 336,000-square-foot, 200-unit senior residential condominium campus.

The 4.52-acre Development Site would include six 45-foot, four-story buildings. The six buildings would be designed as a unified senior community campus. Outdoor project amenities, such as the lap pool, seating areas, fountains, and sculptures would be located throughout the large plaza area to interconnect the buildings. A public children's playground for guests would be located within the open area surrounding the buildings. The site plan is shown in **Figure 2-1**.

A total of approximately 613 subterranean parking spaces would be provided underneath the senior housing community. Primary automobile access would be provided via the westerly extension of Valleyheart Drive, which would be improved and extended as part of the proposed project. An inbound/outbound driveway for access to the subterranean parking garage would be provided off the extension of Valleyheart Drive. Secondary automobile access would be provided along Whitsett Avenue through two driveways (one inbound and one outbound) for access to the 22-space surface parking lot intended for golf course, driving range, and clubhouse patrons.

The proposed project has been designed to encourage pedestrian activity and walkability. Pedestrian walkways are planned throughout the Development Site to facilitate connectivity to the local recreational facilities and public sidewalks. The project site is adjacent to and accessible from nearby commercial uses (e.g., retail, restaurant, etc.) and other amenities along the Ventura Boulevard corridor, as well as adjacent to public bus transit stops. Pedestrian walkways within the Development Site and the adjacent sidewalks will be appropriately landscaped and adorned to provide a "friendly" walking environment, including lighting and wayfinding signage.



LEGEND:

Property Line

SOURCE: Franco & Associates, Inc., 2012

APPROX. SCALE

N

0 100 200 FEET

taha

Weddington Golf and Senior Housing Project
Air Quality and Noise Impact Report

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FIGURE 2-1

SITE PLAN

Sustainable Strategies

The proposed project incorporates many "sustainable" or "green" strategies that target sustainable site development, water savings, energy efficiency, green-oriented materials selection, and improved indoor environmental quality. Project sustainable strategies/features include:

- The proposed project would be conveniently located near basic commercial services and public transit opportunities. The project site would be within 0.5 miles of banks, groceries, and restaurants (primarily along Ventura Boulevard). The project site has convenient access to public transportation and alternative transportation features would be provided as part of the project, such as bicycle storage, changing room, and preferred parking for low-emitting and fuel efficient vehicles.
- The proposed project would be located adjacent to the existing golf course, which would allow utilization of the existing greenery as a heat absorption source. This would create a steady micro-climate that helps increase occupant comfort and lower air-conditioning and energy usage.
- The proposed project would recycle and/or salvage at least 50 percent of non–hazardous construction and demolition debris.
- The proposed project would use regional construction materials to reduce environmental impacts associated with the transportation of materials.
- The proposed project would use water efficient landscaping and native drought tolerant plants.
- The proposed project would use storm water infiltration and detention basins to manage storm water runoff and limit disruption and pollution of natural water flows.
- The proposed project would include easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials such as paper, corrugated cardboard, glass, plastics, metals, and landscaping debris (trimmings).
- The proposed project would utilize natural light as the primary source of light in all dwelling units. Lighting systems would be controllable to achieve maximum efficiency, including the installation of occupancy sensors that would shut-off unnecessary/unused lights and decrease energy consumption. Photocells would be provided in daylight accessible spaces that would shut off unnecessary/unused lights within 15 feet of a window or skylight to conserve energy.
- The proposed project would include exterior lighting that would be either "dark-sky compliant", down lighting under covered areas, or fixtures with visors/louvers for glare and light control, thereby minimizing nighttime illumination.
- The proposed project would include efficient heating, ventilation, and air conditioning (HVAC) systems.
- The proposed project energy performance would be 20 percent more effective than required by California Title 24 Energy Design Standards, thereby reducing energy use, air pollutant emissions and greenhouse gas emissions.
- The proposed project would be designed to provide separate HVAC units for each dwelling unit and for common areas, thus providing a high level of thermal comfort controllability and satisfaction.
- The proposed project would implement energy management systems, energy saving fixtures, high performance windows, and possibly on-site renewable energy sources, such as solar panels.

- The proposed project design would incorporate cool and white roofing and "green" fiberglass insulation materials to reduce unwanted heat absorption and minimize energy consumption.

Construction

Although an exact construction schedule is not known at this time, demolition, grading and construction for the proposed project is anticipated to take approximately 24 months. Three primary construction phases are anticipated: 1) demolition of existing development (i.e., tennis courts) at the Development Site; 2) excavation, grading and preparation of the Development Site; and 3) construction of the buildings and parking structure at the Development Site. Minor construction activity is also anticipated at the Golf Course Site related to adjustments to the driving range and golf course greenways/fairways configuration and would most likely occur concurrent to the site preparation stage for the Development Site.

Demolition, grading and construction activities are anticipated to begin in year 2014 and occupancy is planned during year 2016. It is anticipated that the golf course, driving range, and clubhouse would continue to operate without significant disruption throughout the construction of the Development Site.

Demolition of the tennis courts would generate construction waste (primarily concrete, asphalt, green waste and fencing). During construction activities, the Applicant would recycle a considerable portion of demolition and construction materials, therefore reducing waste materials being transported to landfills. In order to minimize construction waste to be taken to landfills, the Applicant would require primary construction contractors to provide separate receptacles for materials that could be recycled such as wood scraps, metal scraps, and cardboard. Individual contractors would be required to emphasize diversion planning to ensure that the maximum amount of recyclable materials are separated and placed in the appropriate bins. Some of these materials may be temporarily stockpiled at the project site until they are either incorporated into the new construction and/or removed for off-site recycling.

Grading of the project site is expected to entail minor cuts and fills from the existing grades to establish the building pads and to provide surface drainage for the site. However, major excavation will be required to establish the two levels of subterranean parking at the Development Site. Soils are not expected to be imported to the project site; however, an estimated 82,000 cubic yards of earth materials excavated from the Development Site would be exported.

Construction activities generating noise are limited to the hours between 7:00 a.m. and 9:00 p.m. from Monday through Friday and between 8:00 a.m. and 6:00 p.m. on Saturday. The City of Los Angeles Noise Control Ordinance, which applies to construction activities being undertaken within 500 feet of a residential zone, prohibits noise that is "loud, unnecessary, and unusual, and substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of work." Construction activities would comply with City regulations.

3.0 AIR QUALITY

This section examines the degree to which the proposed project may result in significant adverse changes to air quality. Both short-term construction emissions occurring from activities, such as site grading and haul truck trips, and long-term effects related to the ongoing operation of the proposed project are discussed in this section. This analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutant released into the air, measured in ppd. "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in ppm or micrograms per cubic meter ($\mu g/m^3$).

3.1 POLLUTANTS & EFFECTS

Criteria air pollutants are defined as pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb). These pollutants are discussed below.

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft and trains. In urban areas such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follow the spacial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[1] The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC) and nitrogen oxides (NO_X) react in the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue and some immunological changes.

Nitrogen Dioxide. NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a

[1]Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., motor vehicles, power generation and industrial facilities), residential fireplaces and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X and VOC. Inhalable particulate matter, or PM_{10}, is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Lead. Pb in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, ammunition and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities have become lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time and growth.

Toxic Air Contaminants. Toxic air contaminants (TACs) are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a

corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity, and how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources.

The emission of toxic substances into the air can be damaging to human health and to the environment. Human exposure to these pollutants at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. Pollutants deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.

The public's exposure to TACs is a significant public health issue in California. The Air Toxics "Hotspots" Information and Assessment Act is a state law requiring facilities to report emissions of TACs to air districts. The program is designated to quantify the amounts of potentially hazardous air pollutants released, the location of the release, the concentrations to which the public is exposed, and the resulting health risks.

The State Air Toxics Program (AB 2588) identified over 200 TACs, including the 188 TACs identified in the federal Clean Air Act. The Unites States Environmental Protection Agency (USEPA) has assessed this expansive list of toxics and identified 21 TACs as Mobile Source Air Toxics (MSATs). MSATs are compounds emitted from highway vehicles and nonroad equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. USEPA also extracted a subset of these 21 MSAT compounds that it now labels as the six priority MSATs: benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. While these six MSATs are considered the priority transportation toxics, USEPA stresses that the lists are subject to change and may be adjusted in future rules.

To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the average cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

Diesel Particulate Matter. According to the 2006 California Almanac of Emissions and Air Quality, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from the exhaust of diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Diesel exhaust is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; the on road diesel engines of trucks, buses and cars and the off road diesel engines that include locomotives, marine vessels and heavy duty equipment. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to diesel PM is breathing the air that contains diesel PM. The fine and ultra-fine particles are respirable (similar to $PM_{2.5}$), which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to diesel PM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from both short-term or acute exposures, and long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure to diesel PM in experimental animal inhalation studies have shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.

Unlike other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, California Air Resources Board (CARB) has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM.

Diesel PM poses the greatest health risk among these ten TACs mentioned. Based on receptor modeling techniques, SCAQMD estimated that diesel PM accounts for 84 percent of the total risk in the South Coast Air Basin.

Greenhouse Gases. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. Simply put, the greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the greenhouse effect, the Earth would be a frozen globe with an average surface temperature of about 5°F.

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO_2 is the most abundant pollutant that

contributes to climate change through fossil fuel combustion. CO_2 comprised 81 percent of the total GHG emissions in California in 2002 and non-fossil fuel CO_2 comprised 2.3 percent.[2] The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. The CO_2e of CH_4 and N_2O represented 6.4 and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5 percent of these emissions.[3] In addition, there are a number of man-made pollutants, such as CO, NO_X, non-methane VOC, and SO_2, that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

3.2 REGULATORY SETTING

Federal

United States Environmental Protection Agency. The Federal Clean Air Act (CAA) governs air quality in the United States. The USEPA is responsible for enforcing the CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in States other than California. Automobiles sold in California must meet stricter emission standards established by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in **Table 3-1**. The USEPA has classified the Basin as attainment for SO_2, maintenance for CO and nonattainment for O_3, $PM_{2.5}$, PM_{10}, and Pb.

State

California Air Resources Board. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in **Table 3-1**.

[2]California Environmental Protection Agency, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 11.
[3]*Ibid.*

TABLE 3-1: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	n/a	0.075 ppm (147 µg/m^3)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Nonattainment
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	15 µg/m^3	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Maintenance	9 ppm (10 mg/m^3)	Maintenance
	1-hour	20 ppm (23 mg/m^3)	Maintenance	35 ppm (40 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Nonattainment	0.053 ppm (100 µg/m^3)	Attainment
	1-hour	0.18 ppm (338 µg/m^3)	Nonattainment	100 ppb (188 µg/m^3	n/a
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	--	--	0.030 ppm (80 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	0.14 ppm (365 µg/m^3)	Attainment
	3-hour	--	--	--	--
	1-hour	0.25 ppm (655 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Nonattainment	--	--
	Calendar Quarter	--	--	1.5 µg/m^3	Nonattainment

n/a = not available
SOURCE: CARB, *Ambient Air Quality Standards*, June 7, 2012; CARB, State Standard Area Designations, http://www.arb.ca.gov/desig/statedesig.htm; USEPA, The Green Book Nonattainment Areas for Criteria Pollutants, http://www.epa.gov/air/oaqps/greenbk/index.html.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, $PM_{2.5}$, PM_{10}, NO_2, and Pb.[4]

Toxic Air Contaminants (TACs). CARB's statewide comprehensive air toxics program was established in the early 1980's. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions,

[4]CARB, Area Designation Maps, available at http://www.arb.ca.gov/desig/adm/adm.htm, accessed August 28, 2008.

manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)]. The Toxic Air Contaminant Identification and Control Act also requires CARB to use available information gathered from the Air Toxics "Hot Spots" Information and Assessment Act program to include in the prioritization of compounds.

California has established a two-step process of risk identification and risk management to address the potential health effects from air toxic substances and protect the public health of Californians. During the first step (identification), CARB and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified as a TAC in California. During this process, ACRB and the OEHHA staff draft a report that serves as the basis for this determination. CARB staff assesses the potential for human exposure to a substance and the OEHHA staff evaluates the health effects. After CARB and the OEHHA staff hold several comment periods and workshops, the report is then submitted to an independent, nine-member Scientific Review Panel (SRP), who reviews the report for its scientific accuracy. If the SRP approves the report, they develop specific scientific findings which are officially submitted to CARB. CARB staff then prepares a hearing notice and draft regulation to formally identify the substance as a TAC. Based on the input from the public and the information gathered from the report, the CARB Board decides whether to identify a substance as a TAC. In 1993, the California Legislature amended the Toxic Air Contaminant Identification and Control Act by requiring CARB to identify 189 federal hazardous air pollutants as State TACs.

In the second step (risk management), CARB reviews the emission sources of an identified TAC to determine if any regulatory action is necessary to reduce the risk. The analysis includes a review of controls already in place, the available technologies and associated costs for reducing emissions, and the associated risk.

The Air Toxics "Hot Spots" Information and Assessment Act (Health and Safety Code Section 44360) supplements the Toxic Air Contaminant Identification and Control Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. The "Hot Spots" Act also requires facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

California's Diesel Risk Reduction Program. The CARB identified particulate emissions from diesel-fueled engines (diesel PM) TACs in August 1998. Following the identification process, the ARB was required by law to determine if there is a need for further control, which led to the risk management phase of the program.

For the risk management phase, CARB formed the Diesel Advisory Committee to assist in the development of a risk management guidance document and a risk reduction plan. With the assistance of the Advisory Committee and its subcommittees, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Board approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase.

During the control measure phase, specific Statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions.

Local

South Coast Air Quality Management District. The 1977 Lewis Air Quality Management Act created the SCAQMD to coordinate air quality planning efforts throughout Southern California. This Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD monitors air quality within the project area. The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a subregion of the SCAQMD and covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto mountains to the north and east; and the San Diego County line to the south (**Figure 3-1**).

Air Quality Management Plan. All areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The Air Quality Management Plan (AQMP) is the SCAQMD plan for improving regional air quality. It addresses CAA and CCAA requirements and demonstrates attainment with State and federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the Basin must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

The 2007 AQMP was adopted by the SCAQMD on June 1, 2007. The 2007 AQMP proposes attainment demonstration of the federal $PM_{2.5}$ standards through a more focused control of SO_X, directly-emitted $PM_{2.5}$, and NO_X supplemented with VOC by 2015. The eight-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_X and VOC reductions to meet the standard by 2024. The 2007 AQMP also addresses several federal planning requirements and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP is consistent with and builds upon the approaches taken in the 2003 AQMP. However, the 2007 AQMP highlights the significant amount of reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the time frames allowed under the CAA.

LEGEND:

South Coast Air Basin

State of California

SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998

APPROX. SCALE

N

0 75 150 MILES

taha

Weddington Golf and Senior Housing Project
Air Quality and Noise Impact Report

taha 2011-077 PLANNING ASSOCIATES, INC.

FIGURE 3-1

SOUTH COAST AIR BASIN

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies. These policies can be viewed in the SCAQMD's *Air Toxics Control Plan for the Next Ten Years* (March 2000). To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the cancer risk in the region from carcinogenic air pollutants ranges from about 870 in a million to 1,400 in a million, with an average regional risk of about 1,200 in a million.

An addendum to the plan was completed in March 2004 that included a status update on the implementation of the various mobile and stationary source strategies. Revised projections were based on accomplishments thus far and a new inventory was included to reflect the updated 2003 Air Quality Management Plan.

Global Climate Change

In response to growing scientific and political concern with global climate change, California adopted a series of laws to reduce emissions of GHGs into the atmosphere.

Assembly Bill 1493 (AB 1493). In September 2002, AB 1493 was enacted, requiring the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State.

Executive Order (E.O.) S-3-05. On June 1, 2005, E.O. S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The Executive Order establishes State GHG emission targets of 1990 levels by 2020 (the same as AB 32) and 80 percent below 1990 levels by 2050. It calls for the Secretary of California Environmental Protection Agency (Cal/EPA) to be responsible for coordination of State agencies and progress reporting. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency.

In response to the Executive Order, the Secretary of the Cal/EPA created the Climate Action Team (CAT). California's CAT originated as a coordinating council organized by the Secretary for Environmental Protection. It included the Secretaries of the Natural Resources Agency, and the Department of Food and Agriculture, and the Chairs of the Air Resources Board, Energy Commission, and Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in the State. The council was given formal recognition in E.O. S-3-05 and became the CAT.

The original mandate for the CAT was to develop proposed measures to meet the emission reduction targets set forth in the executive order. The CAT has since expanded and currently has members from 18 State agencies and departments. The CAT also has ten working groups which coordinate policies among their members. The working groups and their major areas of focus are:

- Agriculture: Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change;

- Biodiversity: Designing policies to protect species and natural habitats from the effects of climate change;
- Energy: Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation;
- Forestry: Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols;
- Land Use and Infrastructure: Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions;
- Oceans and Coastal: Evaluating the effects sea level rise and changes in coastal storm patterns on human and natural systems in California;
- Public Health: Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions;
- Research: Coordinating research concerning impacts of and responses to climate change in California;
- State Government: Evaluating and implementing strategies to reduce GHG emissions resulting from State government operations; and
- Water: Reducing GHG impacts associated with the State's water systems and exploring strategies to protect water distribution and flood protection infrastructure.

The CAT is responsible for preparing reports that summarize the State's progress in reducing GHG emissions. The most recent CAT Report was published in December 2010. The CAT Report discusses mitigation and adaptation strategies, State research programs, policy development, and future efforts.

Assembly Bill 32 (AB 32). In September 2006, the State passed the California Global Warming Solutions Act of 2006, also known as AB 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the ARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to Statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills. On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emission from the non-electricity sector. The CARB has determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO_2e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing greenhouse gas emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a Statewide renewable electricity standard of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
- Adopting and implementing measures to reduce transportation sector emissions, including California's.

CARB has also developed the GHG mandatory reporting regulation, which required reporting beginning on January 1, 2008 pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO_2 per year. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year, make up 94 percent of the point source CO_2 emissions in California.

CEQA Guidelines Amendments. California Senate Bill (SB) 97 required the Governor's Office of Planning and Research (OPR) to develop California Environmental Quality Act (CEQA) Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the ARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the ARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

Senate Bill 375 (SB 375). SB 375, adopted in September 30, 2008, provides a means for achieving AB 32 goals through the reduction in emissions of cars and light trucks. SB 375 requires new RTPs to include Sustainable Communities Strategies (SCSs). This legislation also allows the development of an Alternative Planning Strategy (APS) if the targets cannot be feasibly met through an SCS. The APS is not included as part of the RTP. In adopting SB 375, the Legislature expressly found that improved land use and transportation systems are needed in order to achieve the GHG emissions reduction target of AB 32. Further, the staff analysis for the bill prepared for the Senate Transportation and Housing Committee's August 29, 2008 hearing on SB 375 (hereby incorporated by reference) began with the following statement: "According to the author, this bill will help implement AB 32 by aligning planning for housing, land use, transportation and greenhouse gas emissions for the 17 MPOs in the State."

CARB Guidance. The CARB has published draft guidance for setting interim GHG significance thresholds (October 24, 2008). The guidance is the first step toward developing the recommended Statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). The CARB believes that thresholds in these important sectors will advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

SCAQMD Guidance. The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.

Green LA Action Plan. The City of Los Angeles has issued guidance promoting green building to reduce GHG emissions. The goal of the Green LA Action Plan (Plan) is to reduce greenhouse gas emissions 35 percent below 1990 levels by 2030.[5] The Plan identifies objectives and actions designed to make the City a leader in confronting global climate change. The measures would reduce emissions directly from municipal facilities and operations, and create a framework to address City-wide GHG emissions. The Plan lists various focus areas in which to implement GHG reduction strategies. Focus areas listed in the Plan include energy, water, transportation, land use, waste, port, airport, and ensuring that changes to the local climate are incorporated into planning and building decisions. The Plan discusses City goals for each focus area, as follows:

Energy

- Increase the generation of renewable energy;
- Encourage the use of mass transit;
- Develop sustainable construction guidelines;
- Increase City-wide energy efficiency; and
- Promote energy conservation.

[5]City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.

Water

- Decrease per capita water use to reduce electricity demand associated with water pumping and treatment.

Transportation

- Power the City vehicle fleet with alternative fuels; and
- Promote alternative transportation (e.g., mass transit and rideshare).

Other Goals

- Create a more livable City through land use regulations;
- Increase recycling, reducing emissions generated by activity associated with the Port of Los Angeles and regional airports;
- Create more City parks, promoting the environmental economic sector; and
- Adapt planning and building policies to incorporate climate change policy.

The City adopted an ordinance to establish a green building program in April 2008. The ordinance establishes green building requirements for projects involving 50 or more dwelling units. The Green Building Program was established to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program addresses the following five areas:

- Site: location, site planning, landscaping, storm water management, construction and demolition recycling
- Water Efficiency: efficient fixtures, wastewater reuse, and efficient irrigation
- Energy and Atmosphere: energy efficiency, and clean/renewable energy
- Materials and Resources: materials reuse, efficient building systems, and use of recycled and rapidly renewable materials
- Indoor Environmental Quality: improved indoor air quality, increased natural lighting, and thermal comfort/control

3.3 EXISTING SETTING

3.3.1 Air Pollution Climatology

The project site is located within the Los Angeles County portion of the Basin. Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin.

The Basin is in an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. This Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature and winds throughout the region.

The Basin experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). In the morning, CO levels are relatively high due to cold temperatures and the large number of cars traveling. High CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 levels are also generally higher during fall and winter days.

3.3.2 Local Climate

The mountains and hills within the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. Within the project site and its vicinity, the average wind speed, as recorded at the Burbank Wind Monitoring Station, is approximately four miles per hour, with calm winds occurring approximately ten percent of the time. Wind in the vicinity of the project site predominately blows from the southwest.[6]

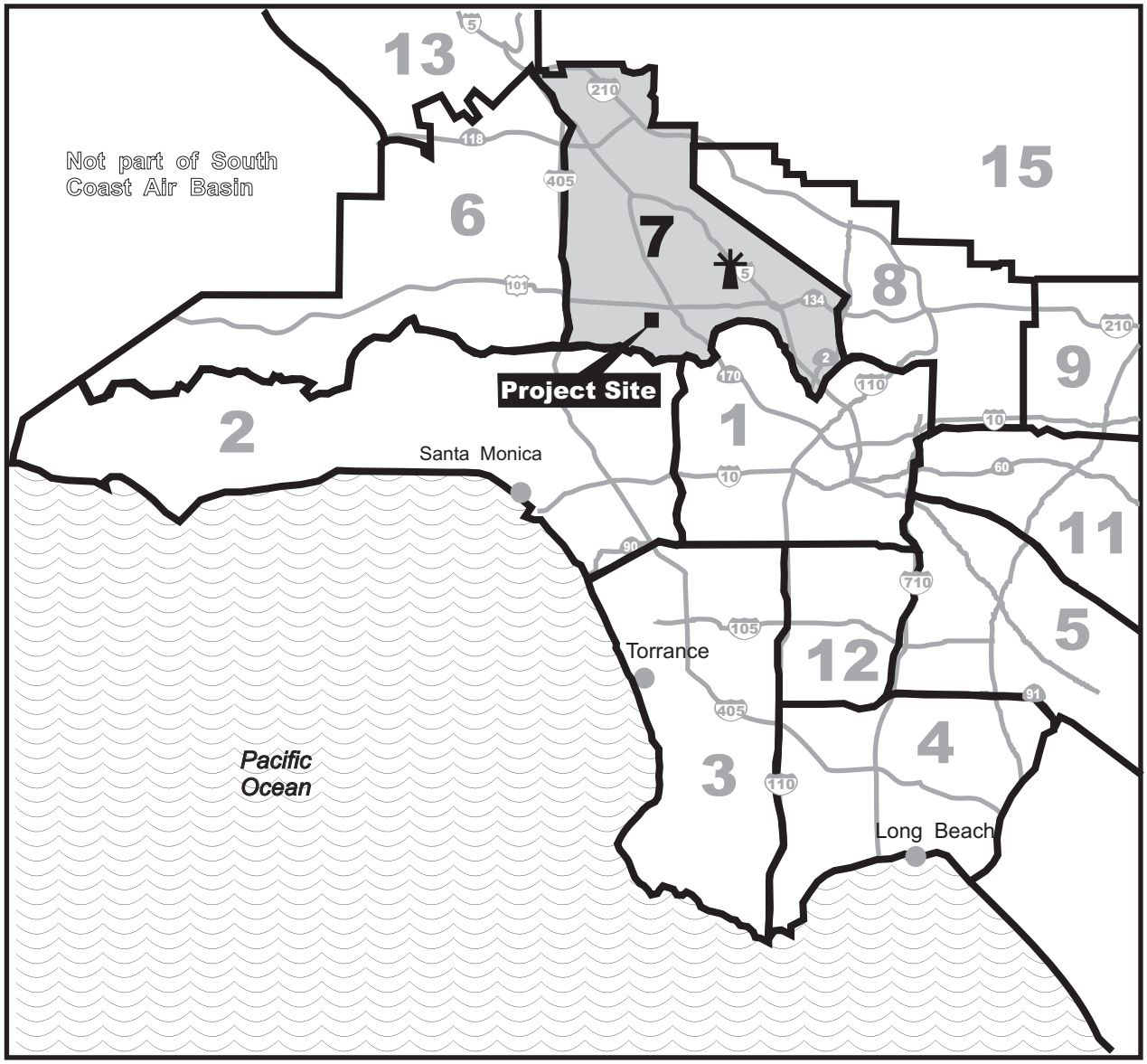
The annual average temperature in the project area is 64.1 degrees Fahrenheit (°F). The project area experiences an average winter temperature of approximately 55.2°F and an average summer temperature of approximately 73.1°F. Total precipitation in the project area averages approximately 16.5 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages approximately ten inches during the winter, approximately four inches during the spring, approximately two inches during the fall, and less than one inch during the summer.[7]

3.3.3 Air Monitoring Data

The SCAQMD monitors air quality conditions at 38 locations throughout the Basin. The project site is located in SCAQMD's East San Fernando Valley Air Monitoring Subregion, which is served by the Burbank – West Palm Avenue Monitoring Station. The Burbank – West Palm Avenue Monitoring Station is located approximately 5.5 miles northeast of the project site near the intersection of Victory Boulevard and Olive Avenue (**Figure 3-2**). Historical data from the Burbank Monitoring Station were used to characterize existing conditions in the vicinity of the project area. Criteria pollutants monitored at the Burbank Monitoring Station include O_3, CO, NO_2, PM_{10}, $PM_{2.5}$, and SO_2.

[6]SCAQMD, Meteorological Data, available at http://www.aqmd.gov/smog/metdata/MeteorologicalData.html, accessed November 30, 2011.

[7]Western Regional Climate Center, Historical Climate Information, available at http:// www.wrrc.dri.edu, accessed November 30, 2011.



LEGEND: Burbank Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley (not shown)
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
15. San Gabriel Mountains

Approx. Scale

N

0 4.5 9 MILES

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1999

FIGURE 3-2

AIR MONITORING AREAS

Table 3-2 shows pollutant levels, the State standards, and the number of exceedances recorded at the Burbank Monitoring Station from 2008 to 2010.[8] As **Table 3-2** indicates, criteria pollutants CO, NO_2, and SO_2 did not exceed the State standards from 2008 to 2010. However, the one-hour State standard for O_3 was exceeded 3 to 20 times during this period while the one-hour federal standard for O3 was exceeded zero to one time during this period. The eight-hour State standard for O_3 was exceeded 9 to 34 times while the federal standard for O_3 was exceeded four to 17 times during this period. The 24-hour State standard for PM_{10} was exceeded 5 to 10 times during this period and the annual State standard for $PM_{2.5}$ was also exceeded each year from 2008 to 2010.

TABLE 3-2: 2008-2010 AMBIENT AIR QUALITY DATA

		Burbank – West Palm Avenue Monitoring Station		
		Number of Days Above State Standard		
Pollutant	**Pollutant Concentration & Standards**	**2008**	**2009**	**2010**
Ozone (O_3)	Maximum 1-hr Concentration (ppm) Days > 0.09 ppm (State 1-hr standard) Maximum 8-hr Concentration (ppm) Days > 0.07 ppm (State 1-hr standard)	0.133 20 0.110 34	0.145 16 0.097 28	0.111 3 0.084 9
Carbon Monoxide (CO)	Maximum 1-hr concentration (ppm) Days > 20 ppm (State1-hr standard) Maximum 8-hr concentration (ppm) Days > 9.0 ppm (State 8-hr standard)	3 0 2.48 0	3 0 2.89 0	— — 2.35 0
Nitrogen Dioxide (NO_2)	Maximum 1-hr Concentration (ppm) Days > 0.18 ppm (State 1-hr standard)	0.105 0	0.088 0	0.082 0
Respirable Particulate Matter (PM_{10})	Maximum 24-hr concentration ($\mu g/m^3$) Days > 50 $\mu g/m^3$ (State 24-hr standard)	61.0 5	76.0 10	— —
Fine Particulate Matter ($PM_{2.5)}$	Maximum 24-hr concentration ($\mu g/m^3$) Exceed State Standard (12 $\mu g/m^3$)	68.9 Yes	67.5 Yes	43.7 Yes
Sulfur Dioxide(SO_2)	Maximum 24-hr Concentration (ppm) Days > 0.04 ppm (State 24-hr standard)	0.003 0	0.003 0	0.004 0

"—" = There was insufficient (or no) data available to determine the value.
SOURCE: CARB, Air Quality Data Statistics, *Top 4 Summary*, http://www.arb.ca.gov/adam/topfour/topfour1.php, accessed November 30, 2011.
CO pollutant concentration was obtained from SCAQMD, Historical Data by Year, available at http://www.aqmd.gov/smog/historicaldata.htm, accessed November 30, 2011.

3.3.3 Greenhouse Gas Emissions

California is the fifteenth largest emitter of GHG on the planet, representing about two percent of the worldwide emissions.[9] **Table 3-3** shows the California GHG emissions inventory for years 2000 to 2008. Statewide GHG emissions slightly decreased in 2008 due to a noticeable drop in on-road transportation emissions. Also, 2008 was the beginning of the economic recession and fuel prices spiked.

[8]Monitored data for 2011 was not available when this analysis was completed.
[9]CARB, Climate Change Scoping Plan, December 2008.

TABLE 3-3: CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY									
	CO_2e Emissions (Million Metric Tons)								
Sector	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Transportation	171	174	180	178	182	184	184	184	175
Electric Power	104	121	106	110	120	111	108	111	116
Commercial and Residential	44	41	44	41	43	41	41	42	43
Industrial	97	95	97	96	91	91	90	94	93
Recycling and Waste	6.2	6.3	6.2	6.3	6.2	6.5	6.6	6.5	6.7
High Global Warming Potential	11	11	12	13	14	14	15	15	16
Agriculture	25	25	28	28	29	29	30	28	28
Forest Net Emissions	(4.7)	(4.5)	(4.4)	(4.3)	(4.3)	(4.2)	(4.0)	(4.1)	(4.0)
Emissions Total	**453**	**469**	**470**	**469**	**480**	**473**	**471**	**477**	**474**

SOURCE: CARB, *California Greenhouse Gas Inventory*, 2011.

The transportation sector – largely the cars and trucks that move people and goods – is the largest contributor with 37 percent of the State's total GHG emissions in 2008. On-road emissions (from passenger vehicles and heavy duty trucks) constitute 93 percent of the transportation sector total emissions. On-road emissions grew to a maximum of 171 million metric tons of CO_2e in 2005, plateaued until 2007, and decreased in 2008 to 163 million. The amount of gasoline and diesel fuel consumed by on-road vehicles followed a similar trend.

The electricity and commercial/residential energy sectors are the next largest contributor with more than 30 percent of the Statewide GHG emissions. In-State generation accounts for 47 percent of GHG emissions and emissions associated with imported electricity accounts for 53 percent of GHG emissions. Electricity imported into California accounts for only about a quarter of the State's electricity but imported electricity represents more than half of the GHG emissions. This is because much of it is generated by coal-fired power plants, which is among the highest electricity generation sources of GHG emissions. AB 32 specifically requires CARB to address emissions from electricity sources both inside and outside of the State.

California's industrial sector includes refineries, cement plants, oil and gas production, food processors, and other large industrial sources. This sector contributes almost 20 percent of California's GHG emissions, but the sector's emissions are not projected to grow significantly in the future as the State focuses on renewable energy.

The sector termed recycling and waste management is a unique system, encompassing not just emissions from waste facilities but also the emissions associated with the production, distribution and disposal of products throughout the economy.

Although high global warming potential gases (e.g., PFCs, HFCs, and SF_6) are a small contributor to historic GHG emissions, levels of these gases are projected to increase sharply over the next several decades making them a significant source by 2020. These gases are used in growing industries such as semiconductor manufacturing.

The forest sector greenhouse gas inventory includes CO_2 uptake and greenhouse gas emissions from wild and prescribed fires, the decomposition and combustion of residues from harvest and conversion/development, and wood products decomposition. The forest sector is unique in that forests both emit GHGs and absorb CO_2 through carbon sequestration. While the current inventory shows forests absorb 4.7 million metric tons of CO_2e, carbon sequestration has declined since 1990. For this reason, the 2020 projection assumes no net emissions from forests.

The agricultural GHG emissions shown are largely methane emissions from livestock, both from the animals and their waste. Emissions of GHG from fertilizer application are also important contributors from the agricultural sector. Opportunities to sequester CO_2 in the agricultural sector may also exist; however, additional research is needed to identify and quantify potential sequestration benefits.

3.3.4 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers and retirement homes.

As shown in **Figure 3-3**, sensitive receptors within one-quarter mile (1,320 feet) of the project site include the following:

- Single- and multi-family residences located 120 feet to the east
- Christian Science Church located 180 feet to the southeast
- Single- and multi- family residences located 415 feet to the north
- Single-family residences located 595 feet to the south
- Single-family residences located 995 feet to the northwest

The above sensitive receptors represent the nearest residential land uses with the potential to be impacted by the proposed project. Additional sensitive receptors are located further from the project site in the surrounding community and would be less impacted by air emissions than the above sensitive receptors.

3.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

3.4.1 Methodology

Construction

This air quality analysis is consistent with the methods described in the SCAQMD *CEQA Air Quality Handbook* (1993 edition), as well as the updates to the *CEQA Air Quality Handbook*, as provided on the SCAQMD website.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operational from a variety of land use projects. The model quantifies direct emissions from construction and operation (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Construction assumptions used in the CalEEMod analysis include:

Phase 1: Demolition

- Duration: 6 weeks
- Demolition Amount: 508 tons of debris
- Total Number of Truck Trips Haul: 32 haul trucks

LEGEND:

Disturbed Area # Sensitive Receptors

1. Single- and Multi-Family Residences
2. Christian Science Church
3. Single- and Multi-Family Residences
4. Single-Family Residences
5. Single-Family Residences

SOURCE: ESRI and TAHA, 2012

Approx. Scale

N

0 250 500 Feet

taha

Weddington Golf and Senior Housing Project
Air Quality and Noise Impact Report

taha 2011-077 PLANNING ASSOCIATES, INC.

FIGURE 3-3

AIR QUALITY SENSITIVE RECEPTOR LOCATIONS

Phase 2: Grading

- Duration: 25 weeks
- Full-time Operating Equipment: 5
- Total Number of Truck Trips Haul: 7,688 haul trucks
- Amount of Materials Exported: 82,000 cubic yards of earth

Phase 3: Construction

- Duration: 39 weeks
- Full-time Operating Equipment: 8
- Total Operating Equipment: 4

Phase 4: Agricultural Coating

- Duration: 2 weeks
- Total Operating Equipment: 1

Phase 5: Asphalt Paving

- Duration: 1.5 weeks
- Full-time Operating Equipment: 1

Localized emissions, or on-site, emissions were also estimated using CalEEMod. Based on site specifics, the analysis utilized a 25-meter receptor distance and a five-acre project site. Emissions were compared to the SCAQMD Lookup Tables to assess the level of significance.

Operations

CalEEMod was used to calculate operational mobile and area source emissions. CalEEMod uses EMFAC2007 emissions rates to calculate vehicle emissions. EMFAC2007 is the latest emission inventory model for motor vehicles operating on roads in California. This model reflects the CARB's current understanding of how vehicles travel and how much they pollute. The EMFAC2007 model can be used to show how California motor vehicle emissions have changed over time and are projected to change in the future.

Localized CO emissions were calculated utilizing the USEPA's CAL3QHC dispersion model and the CARB's EMFAC 2007 model. CAL3QHC is a model developed by the USEPA to predict CO and other pollutant concentrations from motor vehicle emissions at roadway intersections. The model uses a traffic algorithm for estimating vehicular queue lengths at signalized intersections.

Greenhouse Gas Emissions

For the purpose of this analysis, GHG emissions were quantified from construction and operation of the proposed project using SCAQMD's CalEEMod. Operational emissions include both direct and indirect sources including mobile sources, water use, solid waste, area sources, natural gas, and electricity use emissions.

3.4.2 Significance Criteria

The following are significance criteria that SCAQMD has established to assess construction and operational impacts.

Construction Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily localized or regional, construction emissions were to exceed SCAQMD thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$ or PM_{10}, as presented in **Table 3-4**;
- The proposed project would generate significant emissions of TACs; and/or
- The proposed project would create an odor nuisance.

TABLE 3-4: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day)
Volatile Organic Compounds (VOC)	75	--
Nitrogen Oxides (NO_X)	100	221
Carbon Monoxide (CO)	550	1,158
Sulfur Oxides (SO_X)	150	--
Fine Particulates ($PM_{2.5}$)	55	6
Particulates (PM_{10})	150	11

/a/ Localized thresholds based on 25-meter receptor distance and a five-acre project site.
SOURCE: SCAQMD, 2012.

Operations Phase Significance Criteria

The proposed project would have a significant impact if:

- Daily operational emissions were to exceed SCAQMD operational emissions thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, or PM_{10}, as presented in **Table 3-5**;
- Project-related traffic causes CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20 ppm and 9.0 ppm, respectively;
- The proposed project would generate significant emissions of TACs;
- The proposed project would create an odor nuisance; and/or
- The proposed project would not be consistent with the AQMP.

TABLE 3-5: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS

Criteria Pollutant	Pounds Per Day
Volatile Organic Compounds (VOC)	55
Nitrogen Oxides (NO_X)	55
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_X)	150
Fine Particulates ($PM_{2.5}$)	55
Particulates (PM_{10})	150

SOURCE: SCAQMD, 2012.

Greenhouse Gas Significance Criteria

The SCAQMD has not approved a GHG significance threshold for the development of non-SCAQMD and non-industrial projects. The significance threshold is based on the methodologies recommended by the California Air Pollution Control Officers Association (CAPCOA) CEQA and Climate Change white paper (January 2008). CAPCOA conducted an analysis of various approaches and significance thresholds, ranging from a zero threshold (all projects are

cumulatively considerable) to a high of 40,000 to 50,000 metric tons of CO_2e per year. For example, an approach assuming a zero threshold and compliance with AB 32 2020 targets would require all discretionary projects to achieve a 33 percent reduction from projected "business-as-usual" emissions to be considered less than significant. A zero threshold approach could be considered on the basis that climate change is a global phenomenon, and not controlling small source emissions would potentially neglect a major portion of the GHG inventory. However, the CEQA Guidelines also recognize that there may be a point where a project's contribution, although above zero, would not be a considerable contribution to the cumulative impact (CEQA Guidelines, Section 15130 (a)). Therefore, a threshold of greater than zero is considered more appropriate for the analysis of GHG emissions under CEQA.

Another method would use a quantitative threshold of greater than 900 metric tons CO_2e per year based on a market capture approach that requires mitigation for greater than 90 percent of likely future discretionary development. This threshold would generally correspond to office projects of approximately 35,000 square feet, retail projects of approximately 11,000 square feet, or supermarket space of approximately 6,300 square feet. Another potential threshold would be the 10,000 metric tons standard used by the Market Advisory Committee for inclusion in a GHG Cap and Trade System in California. A 10,000 metric ton significance threshold would correspond to the GHG emissions of approximately 550 residential units, 400,000 square feet of office space, 120,000 square feet of retail, and 70,000 square feet of supermarket space. This threshold would capture roughly half of new residential or commercial development. The basic concepts for the various approaches suggested by CAPCOA are used herein to determine whether or not the proposed project's GHG emissions are "cumulatively considerable."

CAPCOA's suggested quantitative thresholds are generally more applicable to development on sites at the periphery of metropolitan areas, also known as "greenfield" sites, where there would be an increase in vehicle miles traveled (VMT) and associated GHG emissions than to infill development, which would generally reduce regional VMT and associated emissions. As the City of Los Angeles is generally built out, most commercial development within the City is infill or redevelopment and would be expected to generally reduce VMT and reliance on the drive-alone automobile use as compared to further suburban growth at the periphery of the region. A reduction in vehicle use and vehicle miles traveled can result in a reduction in fuel consumption and in air pollutant emissions, including GHG emissions. Recent research indicates that infill development reduces VMT and associated air pollutant emissions, as compared to greenfield sites. For example, a 1999 simulation study conducted for the USEPA, comparing infill development to greenfield development, found that infill development results in substantially fewer VMT per capita (39 percent to 52 percent) and generates fewer emissions of most air pollutants and greenhouse gases.

For this reason, the most conservative (i.e., lowest) thresholds, suggested by CAPCOA, would not be appropriate for the proposed project given that it is located in a community that is highly urbanized. Similarly, the 900-ton threshold was also determined to be too conservative for general development in the South Coast Air Basin. Consequently, the threshold of 10,000 metric tons CO_2e is used as a quantitative benchmark for significance.

3.5 ENVIRONMENTAL IMPACTS

3.5.1 Construction Phase

Regional Impacts

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipments and through vehicle trips generated by construction workers traveling to and from the project site. Fugitive dust emissions would primarily result from demolition and site preparation (e.g., excavation) activities. NO_X emissions would primarily result

from the use of construction equipment. During the finishing phase, paving operations and the application of architectural coatings (e.g., paints) and other building materials would release VOCs. The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

CalEEMod was used to calculate the daily construction emissions. **Table 3-6** shows the estimated daily emissions associated with each construction phase. Daily construction emissions for VOC, NO_X, CO, SO_X, $PM_{2.5}$ and PM_{10} would not exceed the SCAQMD regional thresholds. Therefore, the proposed project would result in a less-than-significant impact related to regional construction emissions.

TABLE 3-6: CONSTRUCTION EMISSIONS

Construction Phase	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$ /a/**	**PM_{10} /a/**
DEMOLITION						
On-Site Emissions	7	53	30	<1	2	3
Off-Site Emissions	<1	<1	1	<1	<1	1
Total Emissions	*7*	*53*	*31*	*<1*	*2*	*4*
SITE PREPARATION						
On-Site Emissions	8	61	37	<1	10	15
Off-Site Emissions	2	23	14	<1	1	1
Total Emissions	*10*	*84*	*51*	*<1*	*11*	*16*
BUILDING						
On-Site Emissions	4	30	21	<1	2	2
Off-Site Emissions	3	14	28	<1	1	7
Total Emissions	*7*	*44*	*49*	*<1*	*3*	*9*
ARCHITECTURAL COATING						
On-Site Emissions	37	3	2	0	<1	<1
Off-Site Emissions	<1	<1	4	<1	1	<1
Total Emissions	*37*	*3*	*6*	*<1*	*1*	*<1*
PAVING						
On-Site Emissions	1	5	3	0	<1	<1
Off-Site Emissions	1	1	1	0	0	0
Total Emissions	*2*	*6*	*4*	*0*	*<1*	*<1*
Maximum Regional Total	37	84	51	<1	11	16
REGIONAL SIGNIFICANCE THRESHOLD	**75**	**100**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	No	No	No	No	No
Maximum On-Site Total	37	61	37	--	10	15
LOCALIZED SIGNIFICANCE THRESHOLD /b/	**--**	**221**	**1,158**	**--**	**6**	**11**
Exceed Threshold?	--	No	No	--	Yes	Yes

/a/ CalEEMod emissions for fugitive dust were adjusted to account for a 61 percent control efficiency associated with SCAQMD Rule 403.
/b/ Assumed a 5-acre project site and a 25-meter (82-foot) receptor distance.
SOURCE: TAHA, 2012.

Localized Impacts

Emissions for the localized construction air quality analysis of $PM_{2.5}$, PM_{10}, CO, and NO_2 were compiled using LST methodology promulgated by the SCAQMD.[10] Localized on-site emissions were calculated using similar methodology to the regional emission calculations. LSTs were developed based upon the size or total area of the emissions source, the ambient air quality in each source receptor area, and the distance to the sensitive receptor. As shown in **Table 3-6**, estimated daily localized emissions associated with each construction phase. Daily construction emissions would not exceed the SCAQMD localized thresholds for NO_2 and CO, and these localized construction emissions would result in a less-than-significant impact. Daily construction emissions of $PM_{2.5}$ and PM_{10} would exceed the SCAQMD localized thresholds. Therefore, without mitigation, the proposed project would result in a significant impact related to localized construction emissions.

Toxic Air Contaminant Impacts

The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy-duty equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person continuously exposed to concentrations of TACs over a 70-year lifetime will contract cancer based on the use of standard risk assessment methodology. The majority of heavy-duty construction equipment activity would take place over a six month period during demolition and site preparation activity. These short-term emissions would not substantially contribute to a significant construction health risk. No residual emissions and corresponding individual cancer risk are anticipated after construction. Therefore, the proposed project would result in a less-than-significant impact related to construction TAC emissions.

Odor Impacts

Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Therefore, the proposed project would result in a less-than-significant impact related to construction odors.

Construction Phase Mitigation Measures

AQ1 Water or a stabilizing agent shall be applied to exposed surfaces at least two times per day to prevent generation of dust plumes.

AQ2 The construction contractor shall utilize at least one or more of the following measures at each vehicle egress from the project site to a paved public road in order to effectively reduce the migration of dust and dirt offsite:

- Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;
- Pave the surface extending at least 100 feet and at least 20 feet wide;
- Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or
- Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.

[10]The concentrations of SO_2 are not estimated because construction activities would generate a small amount of SO_X emissions. No State standard exists for VOC. As such, concentrations for VOC were not estimated.

AQ3 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

AQ4 Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts).

AQ5 Ground cover in disturbed areas shall be replaced as quickly as possible.

Impacts After Mitigation

Regional Impacts. Impacts related to regional air emissions were determined to be less than significant without mitigation.

Localized Impacts. Implementation of Mitigation Measures **AQ1** through **AQ5** would ensure that fugitive dust emissions would be reduced by approximately 61 percent. However, localized daily $PM_{2.5}$ and PM_{10} emissions would continue to exceed the localized significance. Therefore, the proposed project would result in a significant and unavoidable impact related to localized construction emissions.

Toxic Air Contaminant Impacts. Impacts related to toxic air contaminant emissions were determined to be less than significant without mitigation.

Odor Impacts. Impacts related to odors were determined to be less than significant without mitigation.

3.5.2 Operational Phase

Regional Impacts

Motor vehicles that access the project site would be the predominate source of long-term project emissions. Operational emissions are expected to be emitted primarily from vehicles accessing the project site for the on-site residences. The proposed project would generate 624 net daily vehicle trips.[11] **Table 3-7** compares emissions under existing conditions to existing plus project conditions and emissions under future no project conditions to future with project conditions. Regional operational emissions for both scenarios would not exceed SCAQMD significance thresholds. Therefore, the proposed project would result in a less-than-significant impact related to regional operational emissions.

Localized Impacts

CO concentrations in the future are expected to be lower than existing conditions due to stringent State and federal mandates for lowering vehicle emissions. Although traffic volumes would be higher in the future both without and with the implementation of the proposed project, CO emissions from mobile sources are expected to be much lower due to technological advances in vehicle emissions systems, as well as from normal turnover in the vehicle fleet. Accordingly, increases in traffic volumes are expected to be offset by increases in cleaner-running cars as a percentage of the entire vehicle fleet on the road.[12]

[11]Linscott, Law & Greenspan, Engineers, Studio City Senior Living Center Project Traffic Impact Study, February 2, 2012.

[12]Consistent with CARB's vehicle emissions inventory.

TABLE 3-7: OPERATIONAL EMISSIONS

	Pounds Per Day					
	VOC	**NO_X**	**CO**	**SO_X**	**$PM_{2.5}$**	**PM_{10}**
EXISTING CONDITIONS (2012)						
Area Source	0	0	0	0	0	0
Mobile Source	7	16	62	<1	1	10
Total	**7**	**16**	**62**	**<1**	**1**	**10**
EXISTING PLUS PROJECT CONDITIONS (2012)						
Area Source	17	<1	17	0	<1	<1
Mobile Source	13	34	122	<1	2	21
Total	**30**	**34**	**139**	**<1**	**2**	**21**
Net Emissions	23	18	77	<1	1	11
Regional Significance Threshold	**55**	**55**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	No	No	No	No	No
FUTURE NO PROJECT CONDITIONS (2016)						
Area Source	0	0	0	0	0	0
Mobile Source	5	12	46	<1	1	10
Total	**6**	**2**	**17**	**<1**	**1**	**4**
FUTURE WITH PROJECT CONDITIONS						
Area Source	17	<1	17	0	<1	<1
Mobile Source	10	25	90	<1	2	21
Total	**27**	**25**	**107**	**<1**	**2**	**21**
Net Emissions	21	23	90	<1	1	17
Regional Significance Threshold	**55**	**55**	**550**	**150**	**55**	**150**
Exceed Threshold?	No	No	No	No	No	No

SOURCE: TAHA, 2012.

The State one- and eight-hour CO standards may potentially be exceeded at congested intersections with high traffic volumes. An exceedance of the State CO standards at an intersection is referred to as a CO hotspot. The SCAQMD recommends a CO hotspot evaluation of potential localized CO impacts when volume-to-capacity (V/C) ratios are increased by two percent at intersections with a LOS of D or worse. SCAQMD also recommends a CO hotspot evaluation when an intersection decreases in LOS by one level beginning when LOS changes from C to D.

Based on the traffic study, the only intersection that requires a localized CO analysis is Whitsett Avenue/Riverside Drive (AM Peak Hour) under existing plus project conditions. The USEPA CAL3QHC micro-scale dispersion model was used to calculate CO concentrations. One- and eight-hour CO concentrations would be approximately 3 and 2.4 ppm at worst-case sidewalk receptors, respectively. The State one- and eight-hour standards of 20 and 9.0 ppm, respectively, would not be exceeded at the study intersection. Therefore, the proposed project would result in a less-than-significant impact related to operational localized impacts.

Toxic Air Contaminant Impacts

The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[13] The proposed project is not

[13]SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.

anticipated to generate a substantial number of daily truck trips. Based on the limited activity of TAC sources, the proposed project would not warrant the need for a health risk assessment associated with on-site activities, and potential TAC impacts are expected to be less than significant.

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes and automotive repair facilities. The proposed project would not include any of these potential sources, although minimal emissions may result from the use of consumer products (e.g., aerosol sprays). It was expected that the proposed project would not release substantial amounts of TACs, and no significant impact on human health would occur.

The CARB has published guidance for locating new sensitive receptors (e.g., residences) out of harm's way with respect to nearby sources of air pollution.[14] Relevant recommendations include avoid locating new sensitive land uses within 500 feet of a freeway (defined as an urban roads with 100,000 vehicles per day) or 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). The project site is located approximately 4,000 feet from Interstate 101 and approximately 755 feet from the nearest gas station (Arco at 12500 Ventura Boulevard). Additional guidelines in the handbook include avoiding locating new sensitive receptors near rail yards, ports, refineries, distribution centers and dry cleaners. The proposed project would not be located near these air polluting sources. The location of the proposed project would be consistent with the CARB recommendations for locating new sensitive receptors. Therefore, the proposed project would have a less-than-significant impact related to TACs.

Odor Impacts

According to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The project site would be developed with residences and not land uses that are typically associated with odor complaints. On-site trash receptacles would have the potential to create adverse odors. Trash receptacles would be located and maintained in a manner that promotes odor control and no adverse odor impacts are anticipated from these types of land uses. Therefore, the proposed project would result in a less-than-significant impact related to operational odors.

3.5.3 Consistency with the Air Quality Management Plan

The 2007 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. The AQMP includes short-term control measures for stationary and mobile sources developed by the SCAQMD. As shown in **Table 3-8**, the proposed project would not interfere with implementation of these control measures. In addition, the regional and localized emissions analysis demonstrated that the proposed project would not generate significant emissions according to the SCAQMD. Therefore, the proposed project would result in a less-than-significant impact related to the AQMP.

[14]CARB, Air Quality and Land Use Handbook: A Community Health Perspective, April 2005.

TABLE 3-8: PROJECT CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN	
Control Measure	**Project Consistency**
FACILITY MODERNIZATION	
Facility Modernization (NO_X, VOC, and $PM_{2.5}$)	**Not Applicable**: The proposed project would be a new development and would not include modernization. In addition, all new stationary sources would comply with SCAQMD rules and regulations to control emissions.
ENERGY EFFICIENCY/CONSERVATION	
Urban Heat Island (All Pollutants)	**Consistent**: The proposed project is adjacent to the existing golf course, which will allow utilization of the existing greenery as a heat absorption source. Therefore, the proposed project will result in lower air-conditioning and energy usage.
Energy Efficiency and Conservation (All Pollutants)	**Consistent**: The proposed project has been designed to have an energy performance goal of 20 percent more effective than required by California Title 24 Energy Design Standards. The proposed lighting system will be controllable for maximum efficiency (e.g., installation of occupancy sensors that will shut-off unnecessary/unused lights). In addition, the proposed project will implement energy management systems, energy saving fixtures, high performance windows, and possibly on-site renewable energy sources.
GOOD MANAGEMENT PRACTICES	
Improved Leak Detection and Repair (VOC)	**Not Applicable**: The proposed project would not include oil and gas production facilities, petroleum and chemical products processing, storage and transfer facilities, marine terminals, or other sources contributing to fugitive VOC emissions from piping components.
Emission Reductions from Gasoline Transfer and Dispensing Facilities (VOC)	**Not Applicable**: The proposed project would not include gasoline transfer and dispensing facilities.
Further Emission Reductions from Pipeline and Storage Tank Degassing (VOC)	**Not Applicable**: The proposed project would not include gasoline sources of pipeline and storage tank degassing.
PM Control Devices (Baghouses, Wet Scrubbers, Electrostatic Precipitators, and Other Devices) (PM)	**Consistent**: All stationary sources would comply with SCAQMD rules and regulations to control emissions.
Emissions Reduction from Green Waste Composting (VOC and PM)	**Consistent**: The proposed project would include recycling areas dedicated to the collection and storage of non-hazardous materials for recycling, including paper, corrugated cardboard, glas, plastics, metrals and landscaping debris.
Improved Start-up, Shut-down & Turnaround Procedures (All Pollutants)	**Not Applicable**: The proposed project would not include major stationary sources with start-up and shut-down procedures.
MARKET INCENTIVES/COMPLIANCE FLEXIBILITY	
Clean Coatings Certification Program (VOC)	**Not Applicable**: The proposed project would not include stationary sources of VOC emissions.
Further SOx Reduction for RECLAIM (SO_X)	**Not Applicable**: The proposed project would not include stationary sources of SO_X emissions.
Clean Air Act Emission Fees for Major Stationary Sources (VOC and NO_X)	**Not Applicable**: The proposed project would not include major stationary sources (e.g., power plants).
Economic Incentive Programs (All Pollutants)	**Not Applicable**: The proposed project would not include major sources of mobile (e.g., warehouse distribution facilities) or stationary emissions (e.g., power plants).
Petroleum Refinery Pilot Program (VOC and $PM_{2.5}$)	**Not Applicable**: The proposed project would not include a petroleum refinery.

TABLE 3-8: PROJECT CONSISTENCY WITH THE AIR QUALITY MANAGEMENT PLAN	
Control Measure	**Project Consistency**
EMISSION GROWTH MANAGEMENT	
Emission Reductions from New or Redevelopment Projects (NO_X, VOC and $PM_{2.5}$)	**Consistent**: All stationary sources would comply with SCAQMD rules and regulations to control emissions. The proposed project has been designed to be 20 percent more effective than required by California Title 24 Energy Design Standards, thereby, reducing air pollutant emissions and greenhouse gas emissions.
Emission Budget and Mitigation for General Conformity Projects (All Pollutants)	**Not Applicable**: The proposed project does not require a federal conformity analysis.
Emissions Mitigation at Federally Permitted Projects (All Pollutants)	**Not Applicable**: The proposed project does not require federal permits.
SOURCE: TAHA, 2010.	

Operational Phase Mitigation Measures

Operational air quality impacts would be less than significant, and no mitigation measures are required.

Impacts After Mitigation

Not Applicable: The project-related operational emissions would result in a less-than-significant impact without mitigation.

3.6 CUMULATIVE IMPACTS

3.6.1 SCAQMD Methodology

A significant impact would occur if the proposed project resulted in a cumulative net increase in any criteria pollutant above threshold standards. The SCAQMD's approach for assessing cumulative air quality impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. The SCQAMD has set forth significance thresholds designed to assistant in the attainment of ambient air quality standards. The proposed project would not result in a significant regional impact during construction or operation. However, the proposed project would result in a significant localized PM_{10} impact during construction activities. As the proposed project results in a localized significant impact during construction relative to particulate matter, it is anticipated that related project development would also result in significant localized impacts. While mitigation measures would reduce air quality impacts, cumulative construction emissions would exceed SCAQMD localized significance thresholds. Therefore, the proposed project would result in a cumulatively considerable impact related to construction air quality.

3.6.2 Global Climate Change

The GHG and climate change analysis considered project emissions and consistency with applicable GHG reduction plans and policies.

GHG Emissions

Greenhouse gas emissions were calculated for mobile sources, natural gas consumption, general electricity consumption, electricity consumption associated with the use and transport of water, and solid waste decomposition. Based on SCAQMD guidance, the emissions summary also includes

construction emissions amortized over a 30-year span. As shown in **Table 3-9**, the proposed project would result in 1,919 metric tons of CO_2e per year under the future with project conditions. Existing plus project conditions would result in 1,986 metric tons of CO_2e per year. Estimated GHG emissions would be less than the 10,000 metric tons of CO_2e per year quantitative significance threshold. Therefore, the proposed project would result in a less-than-significant impact related to GHG emissions.

TABLE 3-9: GREENHOUSE GAS EMISSIONS

Source	Carbon Dioxide Equivalent (Metric Tons per Year)
EXISTING CONDITIONS (2012)	
Mobile	988
General Electricity	<1
Water Cycle Electricity	120
Natural Gas	<1
Solid Waste Decomposition	7
Total	**1,115**
EXISTING PLUS PROJECT CONDITIONS (2012)	
Mobile	2,085
General Electricity	509
Water Cycle Electricity	159
Natural Gas	265
Solid Waste Decomposition	42
Total	**3,060**
Net Operational Emissions	1,945
Construction Emissions Amortized	41
Net Emissions	**1,986**
Regional Significance Threshold	**10,000**
Exceed Threshold?	No
FUTURE NO PROJECT CONDITIONS (2016)	
Mobile	995
General Electricity	<1
Water Cycle Electricity	120
Natural Gas	<1
Solid Waste Decomposition	7
Total	**1,122**
FUTURE WITH PROJECT CONDITIONS (2016)	
Mobile	2,032
General Electricity	509
Water Cycle Electricity	159
Natural Gas	265
Solid Waste Decomposition	42
Total	**3,007**
Total Net Operational Emissions	1,885
Construction Emissions Amortized	34
Net Emissions	**1,919**
Regional Significance Threshold	**10,000**
Exceed Threshold?	No

SOURCE: TAHA, 2012.

GHG Reduction Plans and Policies

The proposed project incorporates many "sustainable" or "green" strategies that target sustainable site development, water savings, energy efficiency, green-oriented materials selection, and improved indoor environmental quality. Project sustainable strategies/features include:

- The proposed project would be conveniently located near basic commercial services and public transit opportunities. The project site would be within 0.5 miles of banks, groceries, and restaurants (primarily along Ventura Boulevard). The project site has convenient access to public transportation and alternative transportation features would be provided as part of the project, such as bicycle storage, changing room, and preferred parking for low-emitting and fuel efficient vehicles.
- The proposed project would be located adjacent to the existing golf course, which would allow utilization of the existing greenery as a heat absorption source. This would create a steady micro-climate that helps increase occupant comfort and lower air-conditioning and energy usage.
- The proposed project would recycle and/or salvage at least 50 percent of non–hazardous construction and demolition debris.
- The proposed project would use regional construction materials to reduce environmental impacts associated with the transportation of materials.
- The proposed project would use water efficient landscaping and native drought tolerant plants.
- The proposed project would use storm water infiltration and detention basins to manage storm water runoff and limit disruption and pollution of natural water flows.
- The proposed project would include easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials, including paper, corrugated cardboard, glass, plastics, metals, and landscaping debris (trimmings).
- The proposed project would utilize natural light as the primary source of light in all dwelling units. Lighting systems would be controllable to achieve maximum efficiency, including the installation of occupancy sensors that would shut-off unnecessary/unused lights and decrease energy consumption. Photocells would be provided in daylight accessible spaces that would shut off unnecessary/unused lights within 15 feet of a window or skylight to conserve energy.
- The proposed project would include exterior lighting that would be either "dark-sky compliant", down lighting under covered areas, or fixtures with visors/louvers for glare and light control, thereby minimizing nighttime illumination.
- The proposed project energy performance would be 20 percent more effective than required by California Title 24 Energy Design Standards, thereby reducing energy use, air pollutant emissions and greenhouse gas emissions.
- The proposed project would be designed to provide separate HVAC units for each dwelling unit and for common areas, thus providing a high level of thermal comfort controllability and satisfaction.
- The proposed project would implement energy management systems, energy saving fixtures, high performance windows, and possibly on-site renewable energy sources, such as solar panels.
- The proposed project design would incorporate cool and white roofing and "green" fiberglass insulation materials to reduce unwanted heat absorption and minimize energy consumption.

The proposed project would meet the objectives and overall intent of reducing greenhouse gases consistent with direction/measures of the California Air Pollution Control Officers Association and the California Climate Action Team. Project consistency with GHG reduction policies are in shown in **Tables 3-10** and **3-11**. Therefore, the proposed project would result in a less-than-significant impact related to GHG reduction plans and policies.

TABLE 3-10: PROJECT CONSISTENCY WITH CLIMATE ACTION TEAM GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Strategy	Project Consistency
CALIFORNIA AIR RESOURCES BOARD	
Vehicle Climate Change Standards: AB 1493 required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the CARB in September 2004.	**Not Applicable**: These are CARB enforced standards for vehicle manufacturing. Therefore, this strategy is not applicable to the project.
Diesel Anti-Idling: The CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling in July 2004.	**Consistent**: Current State law restricts diesel truck idling to five minutes or less. Diesel trucks making deliveries to the project site would be subject to this State-wide law. Construction vehicles would also subject to this regulation.
Hydrofluorocarbon Reduction: 1) Ban retail sale of HFC in small cans. 2) Require that only low GWP refrigerants be used in new vehicular systems. 3) Adopt specifications for new commercial refrigeration. 4) Add refrigerant leak-tightness to the pass criteria for vehicular inspection and maintenance programs. 5) Enforce federal ban on releasing HFCs.	**Not Applicable**: This strategy applies to the sale, manufacturing and regulation of consumer products. Therefore, this strategy is not applicable to the project.
Alternative Fuels: Biodiesel Blends: CARB would develop regulations to require the use of 1 to 4 percent biodiesel displacement of California diesel fuel.	**Not Applicable**: These are CARB strategies for regulating the use of alternative fuels and increasing heavy duty vehicle efficiency. Therefore, this strategy is not applicable to the project.
Alternative Fuels: Ethanol: Increased use of E-85 fuel.	
Heavy-Duty Vehicle Emission Reduction Measures: Increased efficiency in the design of heavy duty vehicles and an education program for the heavy duty vehicle sector.	
Achieve 50 Percent Statewide Recycling Goal: Achieving the State's 50 percent waste diversion mandate as established by the Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989), will reduce climate change emissions associated with energy intensive material extraction and production as well as methane emission from landfills.	**Consistent**: The proposed project will contain easily accessible recycling areas dedicated to the collection and storage of non-hazardous materials for recycling, including paper, corrugated cardboard, glass, plastics, metals and landscaping debris. During construction, at least 50 percent of non-hazardous construction and demolition debris will be recycled and/or salvaged.
Zero Waste – High Recycling: Efforts to exceed the 50 percent goal would allow for additional reductions in climate change emissions.	
DEPARTMENT OF FORESTRY	
Urban Forestry: A new statewide goal of planting 5 million trees in urban areas by 2020 would be achieved through the expansion of local urban forestry programs.	**Consistent**: The project would include the planting of new trees on the project site.

TABLE 3-10: PROJECT CONSISTENCY WITH CLIMATE ACTION TEAM GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Strategy	Project Consistency
DEPARTMENT OF WATER RESOURCES	
Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce greenhouse gas emissions. Use both potable and non-potable water to maximum extent practicable; low flow appliances (i.e., toilets, dishwashers, showerheads, washing machines, etc); automatic shut off valves for sinks in restrooms; drought resistant landscaping; Place "Save Water" signs near water faucets.	**Consistent**: The project will comply with the City's Green Building Ordinance, which includes energy efficiency requirements to exceed Title 24 standards. The proposed project will be 20 percent more effective than required by Title 24 standards. The project will include storm water infiltration and detention basins to manage storm water runoff and limit disruption and pollution of natural water flows. In addition, the proposed project's landscaping would be required to comply with the City's Water-Efficient Landscape and Irrigation Standards. Landscaping will use water efficient plant species and native drought tolerant plants.
ENERGY COMMISSION (CEC)	
Building Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).	**Consistent**: The project will comply with the City's Green Building Ordinance, which requires that the project exceed Title 24 standards. The proposed project will be 20 percent more effective than required by Title 24 standards.
Appliance Energy Efficiency Standards in Place and in Progress: Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).	**Consistent**: The project will implement energy management systems, energy saving fixtures and high performance windows.
Fuel-Efficient Replacement Tires & Inflation Programs: State legislation established a statewide program to encourage the production and use of more efficient tires.	**Not Applicable**: This strategy is aimed at manufacturers and sellers of tires. Therefore, this strategy is not applicable to the project.
Municipal Utility Energy Efficiency Programs/Demand Response: Includes energy efficiency programs, renewable portfolio standard, combined heat and power, and transitioning away from carbon-intensive generation.	**Consistent**: The project will provide separate HVAC units for each dwelling unit and for common areas, thus providing a high level of thermal comfort controllability and satisfaction. The project will be constructed adjacent to the existing golf course, which will allow utilization of existing greenery as a heat absorption source. Thus, air-conditioning and energy usage will be lowered.
Municipal Utility Renewable Portfolio Standard: California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 20 percent of retail electricity sales from renewable energy sources by 2017, within certain cost constraints.	
Municipal Utility Combined Heat and Power: Cost effective reduction from fossil fuel consumption in the commercial and industrial sector through the application of on-site power production to meet both heat and electricity loads.	
Alternative Fuels: Non-Petroleum Fuels: Increasing the use of non-petroleum fuels in California's transportation sector, as recommended as recommended in the CEC's 2003 and 2005 Integrated Energy Policy Reports.	**Not Applicable**: These strategies are aimed at the transportation sector. Therefore, this strategy is not applicable to the project.
Alternative Fuels: General: The project shall include the necessary infrastructure to encourage the use of alternative fuel vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations.	**Consistent**: The project will provide a facility for low-emitting and fuel efficient vehicles.

TABLE 3-10: PROJECT CONSISTENCY WITH CLIMATE ACTION TEAM GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Strategy	Project Consistency
BUSINESS, TRANSPORTATION, AND HOUSING	
Smart Land Use and Intelligent Transportation Systems (ITS): Smart land use strategies encourage jobs/housing proximity, promote transit-oriented development, and encourage high-density residential/commercial development along transit corridors.	**Consistent**: The project would be located in proximity to basic commercial services and public transit opportunities. The project site has pedestrian access to banks, groceries and restaurants within half a mile. Future residences will also have easy access to the Metropolitan Transit Authority bus service stops along adjacent roadways.
STATE AND CONSUMER SERVICE AGENCY (DEPARTMENT OF GENERAL SERVICES)	
Green Buildings Initiative: Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels. The Executive Order and related action plan spell out specific actions state agencies are to take with state-owned and -leased buildings. The order and plan also discuss various strategies and incentives to encourage private building owners and operators to achieve the 20 percent target.	**Consistent**: The project will include installation of occupancy sensors that will shut-off unnecessary/unused lights to decrease energy consumption. Photocells will be provided in daylight accessible spaces that will shut off unnecessary/unused lights within 15 feet of a window or skylight to conserve energy. The project will also incorporate cool and white roofing and "green" fiberglass insulation materials which serve to reduce unwanted heat absorption and minimize energy consumption.

SOURCE: TAHA, 2012.

TABLE 3-11: PROJECT CONSISTENCY WITH CAPCOA GREENHOUSE GAS REDUCTION MEASURES

CAPCOA-Suggested Measure	Project Consistency
T1: Bike Parking at Multi-Unit Residential: Long term bicycle parking is provided at apartment complexes or condominiums without garages (e.g., one long-term bicycle parking space for each unit without a garage). Long term facilities shall consist of one of the following: a bike locker, a locked room with standard racks and access limited to bicyclists only, or a standard rack in a location that is staffed and/or monitored by video surveillance 24 hours per day).	**Consistent**: The proposed project would provide bicycle storage on the project site.
T2: Proximity to Bike Path/ Bike Lanes: Project is located within 0.5 miles of an existing/planned Class I or Class II bike lane and project design includes a network that connects the project uses to the existing offsite facility. Project design includes a designated bicycle route connecting all units, onsite bicycle parking facilities, offsite bicycle facilities, site entrances, and primary building entrances to existing Class I or Class II bike lane(s) within 0.5 miles. Bicycle route connects to all streets contiguous with project site.	**Consistent**: The project would provide an on-site bicycle storage area.
T3: Minimum Parking: Provide minimum amount of parking required.	**Consistent**: The proposed project would include 613 subterranean parking spaces underneath the senior housing community. The parking structure will include 13 handicapped parking spaces to comply with the Americans with Disabilities Act. The 613 parking spaces will exceed the 500 parking spaces required by the LAMC for the senior housing project.

TABLE 3-11: PROJECT CONSISTENCY WITH CAPCOA GREENHOUSE GAS REDUCTION MEASURES	
CAPCOA-Suggested Measure	**Project Consistency**
T4: Residential Density: Employ Sufficient Density for New Residential Development to Support the Use of Public Transit. Project provides safe and convenient bicycle/pedestrian access to all transit stop(s) within 0.25 miles of project broader.	**Consistent**: The proposed project is located in a densely developed area. The project site is adjacent to and accessible from nearby commercial uses (e.g., retail, restaurants, etc.) and other amenities along the Ventura Boulevard corridor, as well as adjacent to public bus transit stops. Pedestrian walkways within the development site and adjacent sidewalks will be landscaped to provide a "friendly" walking environment.
T5: Suburban Mixed-Use: Have at least three of the following on site and/offsite within 0.25 miles: Residential Development, Retail Development, Park, Open Space, or Office.	**Consistent**: The proposed project is located in a densely developed area. The project site is adjacent to and accessible from nearby commercial uses (e.g., retail, restaurants, etc.). The proposed project will also include outdoor amenities, such as lap pool and children's playground.
T6: Wood Burning Fireplaces/ Stoves: Project does not feature fireplaces or wood burning stoves.	**Consistent**: The project would not include fireplaces or wood burning stoves.
T7: Low-Water Use Appliances: Require the installation of low-water Use Appliances.	**Consistent**: **Consistent**: The proposed project would implement energy management system and energy saving fixtures.
T8: Landscaping: Project shall use drought resistant native trees, trees with low emissions and high carbon sequestration potential.	**Consistent**: The proposed project's landscaping would be required to comply with the City's Water-Efficient Landscape and Irrigation Standards. Landscaping will include water efficient and native drought tolerant plant.
T9: LEED Certification: Promote building approach to sustainability by recognizing performance in sustainable site development, water savings, energy efficiency, materials selection, and indoor environment quality.	**Consistent**: The proposed project intends to achieve LEED certification.
T10: Energy Star Roof: Project installs Energy Star labeled roof materials, where feasible.	**Consistent**: The proposed project will incorporates cool and white roofing and "green" fiberglass insulation materials.
T11: Exceed Title 24: Project exceeds title 24 requirements.	**Consistent**: The project plans to be 20 percent more effective than required by California Title 24 Energy Design standards.
T12: Energy Efficient Appliance Standard: Project uses energy efficient appliances.	**Consistent**: The proposed project would implement energy management system, energy saving fixtures and high performance windows.
T13: Green Building Materials: Project uses materials which are resource efficient and recycled, with long life cycles and manufactured in environmentally friendly way.	**Consistent**: The project will use regional construction materials. At least 50 percent of non-hazardous construction and demolition debris will be recycled and/or salvaged.
SOURCE: TAHA, 2012.	

4.0 NOISE & VIBRATION

This section evaluates noise and vibration levels associated with the implementation of the proposed project. The noise and vibration analysis in this section assesses existing noise and vibration conditions at the project site and its vicinity, as well as short-term construction and long-term operational noise and vibration impacts associated with the proposed project. Mitigation measures for potentially significant impacts are recommended when appropriate to reduce noise and vibration levels.

4.1 NOISE AND VIBRATION CHARACTERISTICS AND EFFECTS

4.1.1 Noise

Characteristics of Sound

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. **Figure 4-1** provides examples of A-weighted noise levels from common sounds.

Noise Definitions

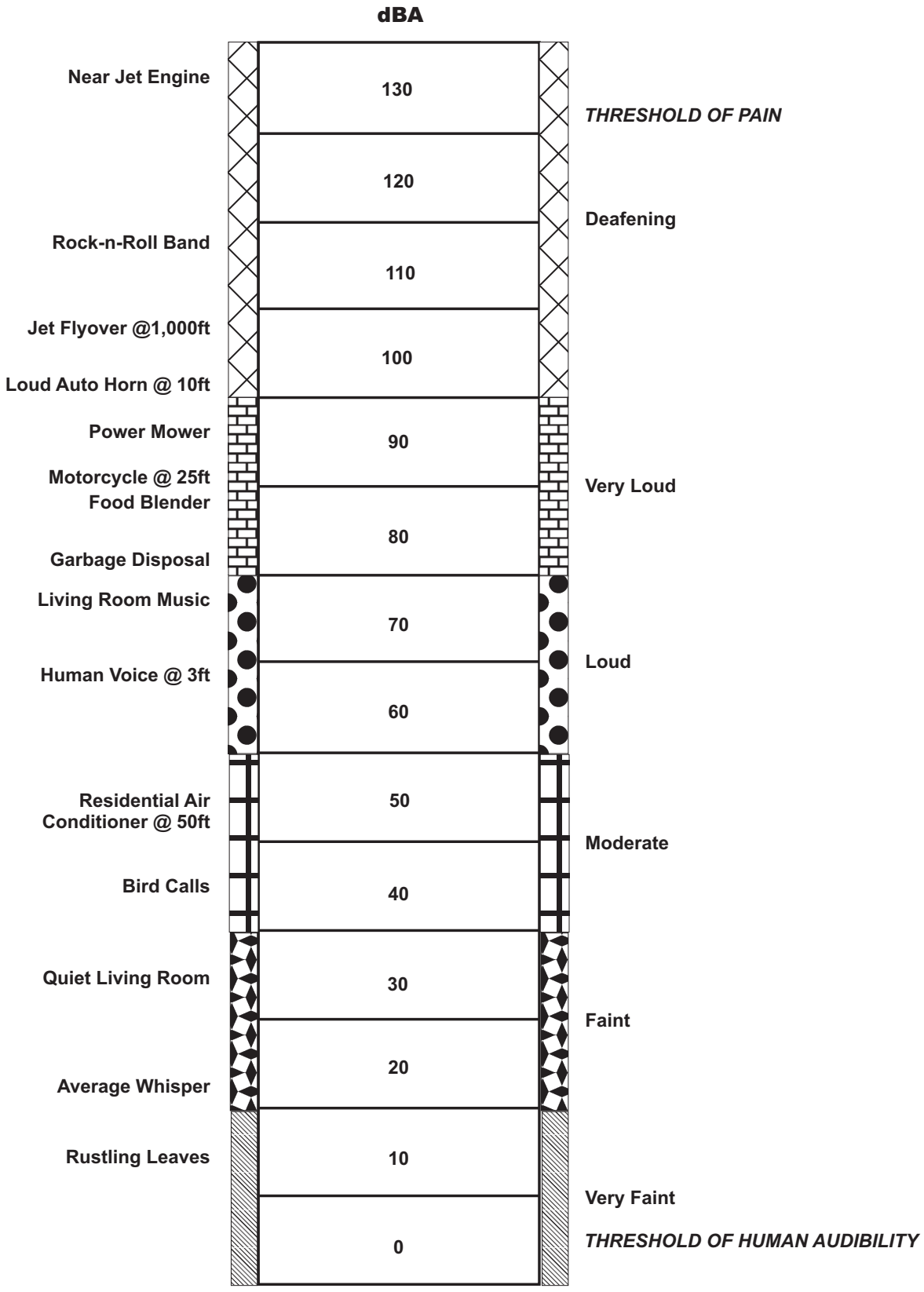
This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}).

Community Noise Equivalent Level. CNEL is an average sound level during a 24-hour period. CNEL is a noise measurement scale, which accounts for noise source, distance, single event duration, single event occurrence, frequency and time of day. Human reaction to sound between 7:00 p.m. and 10:00 p.m. is as if the sound were actually 5 decibels higher than if it occurred from 7:00 a.m. to 7:00 p.m. From 10:00 p.m. to 7:00 a.m., humans perceive sound as if it were 10 dBA higher due to the lower background level. Hence, the CNEL is obtained by adding an additional 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 dBA to sound levels in the night before 7:00 a.m. and after 10:00 p.m. Because CNEL accounts for human sensitivity to sound, the CNEL 24-hour figure is always a higher number than the actual 24-hour average.

Equivalent Noise Level. L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the energy average noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Effects of Noise

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, the nature of work or human activity that is exposed to the noise source.



SOURCE: Cowan, James P., *Handbook of Environmental Acoustics*

FIGURE 4-1

A-WEIGHTED DECIBEL SCALE

Audible Noise Changes

Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely evoke a community reaction. A 10-dBA increase is subjectively heard as a doubling in loudness and would cause a community response.

Noise levels decrease as the distance from the noise source to the receiver increases. Noise generated by a stationary noise source, or "point source," will decrease by approximately 6 dBA over hard surfaces (e.g., pavement) and 7.5 dBA over soft surfaces (e.g., grass) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise generated by a mobile source will decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of the distance.

Generally, noise is most audible when traveling by direct line-of-sight.[15] Barriers, such as walls, berms, or buildings, that break the line-of-sight between the source and the receiver greatly reduces noise levels from the source since sound can only reach the receiver by bending over the top of the barrier (diffraction). Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced. In situations where the source or the receiver is located three meters (approximately ten feet) above the ground, or whenever the line-of-sight averages more than three meters above the ground, sound levels would be reduced by approximately 3 dBA for each doubling of distance.

4.1.2 Vibration

Characteristics of Vibration

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment.

Vibration Definitions

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the affect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.[16]

[15]Line-of-sight is an unobstructed visual path between the noise source and the noise receptor.
[16]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

Effects of Vibration

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that may affect concentration or disturb sleep. In addition, high levels of vibration may damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes).

To counter the effects of vibration, the FTA has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to vibration levels of 0.3 inches per second PPV without experiencing structural damage.[17]

Perceptible Vibration Changes

In contrast to noise, vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 Vdb RMS or lower, well below the threshold of perception for humans which is around 65 Vdb RMS.[18] Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

4.2 REGULATORY SETTING

4.2.1 Noise

Noise Element of the General Plan

The City of Los Angeles has developed a Noise Element of the General Plan to guide in the development of noise regulations.[19] It addresses noise mitigation regulations, strategies and programs and delineates federal, State, and City jurisdiction relative to rail, automotive, aircraft and nuisance noise. Programs included in the Noise Element that are relevant to the proposed project include:

- For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with CEQA and City procedures.
- When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in the CEQA so as to achieve an interior noise level of a CNEL of 45 dB, or less, in any habitable room, as required by Los Angeles Municipal Code Section 91.
- Use, as appropriate, the "Guidelines for Noise Compatible Land Use", or other measures that are acceptable to the city, to guide land use and zoning reclassification, subdivision, conditional use and use variance determinations and environmental assessment considerations, especially relative to sensitive uses, as defined by this chapter, within a CNEL of 65 dB airport noise

[17]Federal Railway Administration, *High-Speed Ground Transportation Noise and Vibration Impact Assessment*, October 2005.
[18]Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.
[19]City of Los Angeles, Noise Element of the Los Angeles City General Plan, February 3, 1999.

exposure areas and within a line of sight of freeways, major highways, railroads or truck haul routes.

The City of Los Angeles Municipal Code

The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise sensitive land uses. Regarding construction, Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) of the Los Angeles Municipal Code (LAMC) indicates that no construction or repair work shall be performed between the hours of 9:00 p.m. and 7:00 a.m., since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling, hotel, apartment or other place of residence. No person, other than an individual home owner engaged in the repair or construction of his/her single-family dwelling, shall perform any construction or repair work of any kind or perform such work within 500 feet of land so occupied before 8:00 a.m. or after 6:00 p.m. on any Saturday or on a federal holiday, nor at any time on any Sunday. Under certain conditions, the City may grant a waiver to allow limited construction activities to occur outside of the limits described above.

Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) of the LAMC also specifies the maximum noise level of powered equipment or powered hand tools. Any powered equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited. However, this noise limitation does not apply where compliance is technically infeasible. Technically infeasible means the above noise limitation cannot be met despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment.

4.2.1 Vibration

There are no adopted City standards for ground-borne vibration. The County of Los Angeles vibration standard is stated in Title 12 (Environmental Protection), Chapter 12.08 (Noise Control), Section 12.08.560 (Vibration) of the Los Angeles County Code. The County Code states that, "Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold shall be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hertz."

4.3 EXISTING SETTING

4.3.1 Existing Noise Environment

The existing noise environment of the project area is characterized by vehicular traffic and noises typical to a dense urban area (e.g., tennis facilities and sirens from the adjacent fire station). Sound measurements were taken using a SoundPro DL Sound Level Meter between 11:20 a.m. and 1:20 p.m. on January 12, 2012 to determine existing ambient daytime noise levels in the project vicinity. These readings were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction noise impacts. As shown in **Table 4-1**, the existing ambient sound levels range between 53.3 and 68.6 dBA L_{eq}. Noise monitoring locations are shown in **Figure 4-2**.

A 24-hour sound measurement was taken from 10:30 a.m. Wednesday, January 18, 2012 to 10:30 a.m. Thursday, January 19, 2012. The recorded CNEL was 69.5 dBA.

LEGEND:

Disturbed Area # Sensitive Receptors

1. Christian Science Church
2. Single-Family Residence
3. Single-Family Residence
4. Single- and Multi-Family Residence
5. Single-Family Residence

SOURCE: ESRI and TAHA, 2012

Approx. Scale

N

0 250 500 Feet

taha

Weddington Golf and Senior Housing Project
Air Quality and Noise Impact Report

taha 2011-077 PLANNING ASSOCIATES, INC.

FIGURE 4-2

NOISE MONITORING LOCATIONS

TABLE 4-1: EXISTING NOISE LEVELS		
Key to Figure 4-2	**Noise Monitoring Location**	**Sound Level (dBA, L_{eq})**
1	Christian Science Church – 4032 Whitsett Avenue	68.6
2	Single-Family Residence – 4118 Wilkinson Avenue	53.3
3	Single-Family Residence – 4202 Beeman Avenue	57.5
4	Single- and Multi-Family Residence – 12464 Sunswept Drive	66.5
5	Single-Family Residence – 4155 Bellaire Avenue	55.1
SOURCE: TAHA, 2012.		

4.3.2 Existing Vibration Environment

Similar to the environmental setting for noise, the vibration environment is dominated by traffic from nearby roadways. Heavy trucks can generate vibrations that vary depending on vehicle type, weight, and pavement conditions. As heavy trucks typically operate on major streets, existing vibration in the project vicinity is largely related to heavy truck traffic on the surrounding roadway network. Field observations indicate that truck travel is minimal on Whitsett Avenue. Vibration levels from adjacent roadways are not perceptible at the project site.

4.3.3 Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. As shown in **Figure 3-3**, sensitive receptors near the project site include the following:

- Single- and multi-family residences located 120 feet to the east
- Christian Science Church located 180 feet to the southeast
- Single- and multi-family residences located 415 feet to the north
- Single-family residences located 595 feet to the south
- Single-family residences located 995 feet to the northwest

The above sensitive receptors represent the nearest residential land uses with the potential to be impacted by the proposed project. Additional sensitive receptors are located further from the project site in the surrounding community and would be less impacted by air emissions than the above sensitive receptors.

4.4 METHODOLOGY AND SIGNIFICANCE CRITERIA

4.4.1 Methodology

The noise and vibration analysis considers construction and operational sources. The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. Reference noise levels for equipment were provided by the USEPA. Mobile source noise levels were estimated using guidance provided by the Federal Highway Administration. Operational vibration is qualitatively discussed based on guidance in the FTA Transit Noise and Vibration Impact Assessment. Construction vibration levels are estimated using equipment reference levels and propagation formulas provide by the FTA.

4.4.2 Significance Criteria

Based on the City of Los Angeles Noise Ordinance (LAMC Chapter XI), the City of Los Angeles *LA CEQA Thresholds Guide* (2006) and the State Land Use Compatibility Matrix,[20] the proposed project would result in significant noise impacts if it would generate noise levels in excess of the following thresholds.

Construction Phase Significance Criteria

A significant construction noise impact would result if:

- Construction activity would occur outside of the hours permitted by the City's Noise Ordinance (i.e., between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, before 8:00 a.m. or after 6:00 p.m. on Saturday or any federal holiday, or anytime on Sunday);
- Construction activity would occur within 500 feet of a residential zone on Saturday unless an after-hours construction permit has been issued by the City. An after-hours permit could be issued by the City for low noise level construction activities (e.g., painting and interior improvements); and/or
- Construction activity would exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use.

Operational Phase Significance Criteria

A significant operational noise impact would result if:

- The proposed project causes the ambient noise level measured at the property line of the affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" category or any 5 dBA or more increase in noise level. As shown in **Table 4-2**, "normally unacceptable" ranges from 70 to 75 dBA CNEL for single- and multi-family residences, and 70 to 80 dBA CNEL for medical uses, which include hospitals and medical offices. "Clearly unacceptable" ranges from 70 to 85 dBA CNEL or greater for single- and multi-family residences, and 80 dBA CNEL or greater for medical uses; and/or
- The proposed project would expose new sensitive receptors to interior noise levels greater than 45 dBA.

[20] California Office of Noise Control, Department of Health Services.

TABLE 4-2: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS

Land Use Category	Community Noise Exposure (dBA, CNEL) 55	60	65	70	75	80
Residential - Low Density Single-Family, Duplex, Mobile Homes						
Residential - Multi-Family						
Transient Lodging - Motels Hotels						
Schools, Libraries, Churches, Hospitals, Nursing Homes						
Auditoriums, Concert Halls, Amphitheaters						
Sports Arena, Outdoor Spectator Sports						
Playgrounds, Neighborhood Parks						
Golf Courses, Riding Stables, Water Recreation, Cemeteries						
Office Buildings, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable - New construction or development should generally not be undertaken.

SOURCE: California Office of Noise Control, Department of Health Services.

Vibration Significance Criteria

There are no adopted State or City of Los Angeles vibration standards. Based on federal guidelines, the proposed project would result in a significant construction or operational vibration impact if:

- The proposed project would expose buildings to the FTA building damage threshold level of 0.3 inches per second.[21]

4.5 ENVIRONMENTAL IMPACTS

4.5.1 Noise Impacts

Construction Impacts

General Construction Noise. Construction of the proposed project would result in temporary increases in ambient noise levels in the project area on an intermittent basis. The increase in noise would likely result in a temporary annoyance to nearby residents during the approximate 24-month construction schedule. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers.

Construction activities typically require the use of numerous pieces of noise-generating equipment. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 4-3**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source

TABLE 4-3: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION MACHINES

	Noise Level (dBA) /a/	
Noise Source	**50 Feet**	**100 Feet**
Jackhammer	90	84
Crane	88	82
Street Paver	87	81
Backhoe	84	78
Street Compressor	81	75
Front-end Loader	80	74
Grader	87	81
Idling Haul Truck	89	83
Cement Mixer	82	76
Impact Pile Driving	101	95
Auger Drilling	77	71

/a/ Assumes a 6-dBA drop-off rate for noise generated by a "point source" and traveling over hard surfaces. Actual measured noise levels of the equipment listed in this table were taken at distances of ten and 30 feet from the noise source.
SOURCE: USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.

The noise levels shown in **Table 4-4** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. The highest noise levels are expected to occur during the grading/excavation and finishing phases of construction. A typical piece of noisy equipment is assumed to be active for 40 percent of the eight-hour workday (consistent with the USEPA studies of construction noise), generating a noise level of 89 dBA L_{eq} at a reference distance of 50 feet.

[21] Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.

TABLE 4-4: TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS	
Construction Phase	**Noise Level At 50 Feet (dBA)**
Ground Clearing	84
Grading/Excavation	89
Foundations	78
Structural	85
Finishing	89
SOURCE: USEPA, *Noise from Construction Equipment and Operations, Building Equipment and Home Appliances*, PB 206717, 1971.	

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. The estimated construction noise levels at sensitive receptors are shown in **Table 4-5**. Noise levels related to construction activity would exceed the 5 dBA significance threshold at two of the five nearby sensitive receptors. The proposed project would result in a significant impact without incorporation of mitigation measures.

TABLE 4-5: CONSTRUCTION NOISE LEVELS – UNMITIGATED

Key to Figure 4-3	Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Monitored Existing Ambient (dBA, L_{eq}) /c/	Add New Ambient (dBA, L_{eq}) /d/	Increase /e/
1	Christian Science Church – 4032 Whitsett Avenue	180	77.9	68.6	78.4	9.8
2	Single-Family Residence – 4118 Wilkinson Avenue	415	58.6	57.5	59.7	6.4
3	Single-Family Residence – 4202 Beeman Avenue	595	69.5	65.5	69.8	12.3
4	Single- and Multi-Family Residence – 12464 Sunswept Drive	753	66.4	66.5	69.5	3.0
5	Single-Family Residence – 4155 Bellaire Avenue	995	51.0	55.1	56.5	1.4

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance and building adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
/e/ An incremental noise level increase of 5 dBA or more would result in a significant impact.
SOURCE: TAHA, 2012.

Pile Driving Noise. Pile driving activity would potentially occur during the construction process. Impact pile driving typically generates noise levels of 101 dBA L_{eq} at 50 feet. As shown in **Table 4-6**, the proposed project would increase the ambient noise levels during pile driving activity between 2.5 and 21.3 dBA L_{eq} at sensitive receptors in the project vicinity. Although temporary and intermittent, pile driving noise levels would exceed the 5 dBA significance threshold at three of the five nearby sensitive receptors. Therefore, the proposed project would result in a significant noise impact without mitigation.

TABLE 4-6: PILE DRIVING NOISE LEVELS - UNMITIGATED

Key to Figure 4-2	Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Monitored Existing Ambient (dBA, L_{eq}) /c/	Add New Ambient (dBA, L_{eq}) /d/	Increase /e/
1	Christian Science Church – 4032 Whitsett Avenue	180	89.9	68.6	89.9	21.3
2	Single-Family Residence – 4118 Wilkinson Avenue	415	70.6	57.5	70.8	13.3
3	Single-Family Residence – 4202 Beeman Avenue	595	81.5	65.5	81.6	16.1
4	Single- and Multi-Family Residence – 12464 Sunswept Drive	753	65.4	66.5	69.0	2.5
5	Single-Family Residence – 4155 Bellaire Avenue	995	74.3	55.1	74.3	19.2

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance and building adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
/e/ An incremental noise level increase of 5 dBA or more would result in a significant impact.
SOURCE: TAHA, 2012.

Construction Mitigation Measures

N1 All construction equipment shall be equipped with mufflers and other suitable noise attenuation devices.

N2 Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment).

N3 Based on the Los Angeles Municipal Code (LAMC), construction activity shall be limited to between 7:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. and 6:00 p.m. on Saturdays. Construction activity shall be prohibited on Sundays and federal holidays.

N4 All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule of the proposed project. A sign, legible at a distance of 50 feet shall also be posted at the construction site. All notices and the signs shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can inquire about the construction process and register complaints.

N5 A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.

N6 The construction contractor shall utilize caisson drilling instead of pile driving on the project site.

Impacts After Mitigation

General Construction Noise. Mitigation Measure **N1** would reduce construction noise levels by 3 dBA. Mitigation Measures **N2** through **N5** would assist in attenuating construction noise levels. **Table 4-7** shows mitigated general construction noise levels. Construction noise levels would still exceed the significance threshold at various sensitive receptors. Therefore, general construction noise would result in a significant and unavoidable impact.

TABLE 4-7: CONSTRUCTION NOISE LEVELS – MITIGATED

Key to Figure 4-2	Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Monitored Existing Ambient (dBA, L_{eq}) /c/	Add New Ambient (dBA, L_{eq}) /d/	Increase /e/
1	Christian Science Church – 4032 Whitsett Avenue	180	74.9	68.6	75.8	7.2
2	Single-Family Residence – 4118 Wilkinson Avenue	415	55.6	57.5	59.7	2.2
3	Single-Family Residence – 4202 Beeman Avenue	595	66.5	65.5	69.0	3.5
4	Single- and Multi-Family Residence – 12464 Sunswept Drive	753	54.9	66.5	66.8	0.3
5	Single-Family Residence – 4155 Bellaire Avenue	995	54.8	55.1	58.0	2.9

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance and building adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
/e/ An incremental noise level increase of 5 dBA or more would result in a significant impact.
SOURCE: TAHA, 2012.

Pile Driving Noise. Mitigation Measure **N6** would require caisson drilling instead of impact pile driving. Drilling would typically generate a noise level of 71 dBA L_{eq} at 50 feet. **Table 4-8** shows drilling noise levels. Construction noise levels would still exceed the significance threshold at various sensitive receptors. Therefore, drilling noise would result in a significant and unavoidable impact.

TABLE 4-8: CONSTRUCTION NOISE LEVELS – MITIGATED

Key to Figure 4-2	Sensitive Receptor	Distance (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Monitored Existing Ambient (dBA, L_{eq}) /c/	Add New Ambient (dBA, L_{eq}) /d/	Increase /e/
1	Christian Science Church – 4032 Whitsett Avenue	180	65.9	68.6	70.5	1.9
2	Single-Family Residence – 4118 Wilkinson Avenue	415	46.6	68.6	68.6	0.0
3	Single-Family Residence – 4202 Beeman Avenue	595	57.5	57.5	60.5	3.0
4	Single- and Multi-Family Residence – 12464 Sunswept Drive	753	41.4	66.5	66.5	0.0
5	Single-Family Residence – 4155 Bellaire Avenue	995	50.3	55.1	56.3	1.2

/a/ Distance of noise source from receptor.
/b/ Construction noise source's sound level at receptor location, with distance and building adjustment.
/c/ Pre-construction activity ambient sound level at receptor location.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
/e/ An incremental noise level increase of 5 dBA or more would result in a significant impact.
SOURCE: TAHA, 2012.

Operational Impacts

Vehicular Noise. The predominant noise source for the proposed project is vehicular traffic. According to the traffic impact study prepared by Linscott, Law, and Greenspan, Engineers, the proposed project would generate 624 net daily vehicle trips.[22] **Table 4-9** shows peak hour mobile source noise levels along the analyzed roadway segments for future no project and future with project conditions. The greatest project-related noise increase would be 0.1 dBA L_{eq} along both Whitsett Avenue between Moorpark Street and Ventura and Moorpark Street between Whitsett and Coldwater Canyon Avenues. This would not exceed the most conservative roadway noise threshold of 3-dBA. Therefore, the proposed project would result in a less-than-significant related to future with project mobile noise levels.

TABLE 4-9: OPERATIONAL MOBILE SOURCE NOISE LEVELS – FUTURE WITH PROJECT CONDITIONS

Roadway	Estimated dBA, L_{eq}		
	No Project	Project (2016)	Project Impact
Whitsett Avenue between Riverside Drive and Moorpark Street	70.4	70.4	0
Whitsett Avenue between Moorpark Street and Ventura Boulevard	69.8	69.9	0.1
Moorpark Street between Coldwater Canyon and Whitsett Avenues	70.7	70.7	0
Moorpark Street between Whitsett Avenue and Laurel Canyon Boulevard	70.4	70.5	0.1

SOURCE: TAHA, 2012.

Table 4-10 shows peak hour mobile source noise levels along the analyzed roadway segments for existing and existing plus project conditions. The greatest project-related noise increase would be 0.1 dBA L_{eq} along Whitsett Avenue. This would not exceed the most conservative roadway noise threshold of 3-dBA. Therefore, the proposed project would result in a less-than-significant related to existing plus project mobile noise levels.

TABLE 4-10: OPERATIONAL MOBILE SOURCE NOISE LEVELS – EXISTING PLUS PROJECT CONDITIONS

Roadway	Estimated dBA, L_{eq}		
	No Project	Project (2016)	Project Impact
Whitsett Avenue between Riverside Drive and Moorpark Street	69.9	70	0.1
Whitsett Avenue between Moorpark Street and Ventura Boulevard	69.3	69.4	0.1
Moorpark Street between Coldwater Canyon and Whitsett Avenues	70.2	70.2	0
Moorpark Street between Whitsett Avenue and Laurel Canyon Boulevard	70	70	0

SOURCE: TAHA, 2012.

Stationary Noise. Potential stationary noise sources related to the long-term operations of the proposed project include mechanical equipment and parking areas. Mechanical equipment (e.g., parking structure air vents and HVAC equipment) would be designed so as to be located within an enclosure or confined to the rooftop of the proposed structure. HVAC equipment typically generates noise level of approximately 60 dBA L_{eq} at 50 feet. Mechanical equipment would be

[22]Linscott, Law & Greenspan, Engineers, *Studio City Senior Living Center Project Traffic Impact Study*, February 2, 2012.

screened from view as necessary to comply with provisions of the Municipal Code for on-site stationary sources. Operation of mechanical equipment would not be anticipated to increase ambient noise levels by 5 dBA or more. Therefore, the proposed project would result in a less-than-significant related to stationary equipment noise levels.

The proposed project would include common outdoor amenities such as a lap pool and a small children's playground. As shown in **Figure 2-1**, the pool and playground would generally be surrounded by proposed buildings and would not be in the direct line-of-site of any nearby sensitive receptors. It is anticipated that noise generated at these land uses would not be audible at adjacent noise-sensitive land uses. Therefore, the proposed project would result in a less-than-significant related to outdoor amenity noise levels.

Parking Noise. The proposed project would include 613 subterranean parking spaces underneath the senior housing community. Subterranean parking would be enclosed on all sides and noise generated by this facility would be inaudible at sensitive receivers. As such, parking structure activity would not be anticipated to incrementally increase ambient noise levels at sensitive receptors by 5 dBA or more. Therefore, the proposed project would result in a less-than-significant related to parking noise.

Land Use/Noise Compatibility. It is important that new residential land uses are located in noise compatible environments. Two residential buildings would be located at the project site's property line along Whitsett Avenue. The existing CNEL along Whitsett Avenue is 69.5 dBA. As shown in **Table 4-3**, this noise level is conditionally acceptable for multi-family residences. Conditionally acceptable means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice. The project would be constructed to current design standards and regulations, and each unit would include an air conditioning system. Therefore, the proposed project would result in a less-than-significant related to land use and noise compatibility.

The project site is adjacent to a City of Los Angeles Fire Station No. 78. Noise generated by fire station activity was accounted for in the 24-hour measurement and the analysis presented above. Occasional siren activity may generate audible noise during daytime and nighttime hours. However, operational policy for the City's fire department is to limit the use of sirens and horns, as practical, when traveling past noise sensitive areas[23]. Due to the temporary and necessary nature of fire engine sirens, noise generated by this source is not considered a significant impact.

Operational Noise Mitigation Measures

Operational noise impacts would be less than significant, and no mitigation measures are required.

Impacts After Mitigation

Not Applicable. The project-related operational noise would result in a less-than-significant impact without mitigation.

[23]Department of City Planning Los Angeles, *Noise Element of the Los Angeles City General Plan*, February 3, 1999.

4.5.2 Vibration Impacts

General Construction Activity Vibration Impacts

Heavy-duty equipment activity on the project site would generate vibration. As shown in **Table 4-11**, typical heavy-duty equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second PPV at a distance of 25 feet. The closest sensitive receptor that has a potential impact from heavy equipment activity is a multi-family resident, along Whitsett Avenue and is located approximately 120 feet away from the project site. This sensitive receptor could experience vibration level of 0.008 inches per second PPV. Vibration levels would not exceed the potential building damage threshold of 0.3 inches per second PPV. Therefore, the proposed project would result in a less-than-significant related to general construction vibration.

TABLE 4-11: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (Inches/Second) /a/
Pile Driving (Impact)	0.644
Pile Driving (Sonic)	0.170
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076

/a/ Fragile buildings can be exposed to vibration levels of 0.5 inches per second PPV without experiencing structural damage.
SOURCE: Federal Transit Authority, *Transit Noise and Vibration Impact Assessment*, May 2006.

Pile Driving Vibration Impacts

Construction of the proposed project would require drilled or driven piles. Based on the noise analysis presented above, the construction contractor would be required to use a drilling technique to place piles as opposed to a driving, or impact, technique. Caisson drilling would generate a vibration level of 0.008 inches per second at the nearest sensitive receptor. Vibration levels would not exceed the potential building damage threshold of 0.3 inches per second PPV. Therefore, the proposed project would result in a less-than-significant related to drilling construction vibration.

Construction Vibration Mitigation Measures

Construction phase vibration impacts would be less than significant, and no mitigation measures are required.

Impacts After Mitigation

Not Applicable. Construction phase vibration impacts would result in a less-than-significant impact without mitigation.

Operational Vibration Impacts

The proposed project would not include significant stationary sources of vibration, such as heavy equipment operations. Operational vibration in the project vicinity would be generated by vehicular travel on the local roadways. However, similar to existing conditions, traffic-related vibration levels would not be perceptible by sensitive receptors. Thus, operational vibration would result in a less-than-significant impact.

Operational Vibration Mitigation Measures

Operational vibration impacts would be less than significant, and no mitigation measures are required.

Impacts After Mitigation

The project-related operational vibration would result in a less-than-significant impact.

4.6 CUMULATIVE IMPACTS

When calculating future traffic impacts, the traffic consultant took ten additional projects into consideration. Thus, the future traffic results without and with the proposed project already account for the cumulative impacts from these other projects. Since the noise impacts are generated directly from the traffic analysis results, the future without project and future with project noise impacts described in this report already reflect cumulative impacts.

Table 4-12 presents the cumulative increase in future traffic noise levels at various intersections (i.e., existing and future with project). The maximum cumulative roadway noise increase would be would be 0.6 dBA L_{eq} and would occur along Whitsett Avenue between Moorpark Street and Ventura Boulevard. Cumulative roadway noise levels would not exceed the 3 dBA threshold increment and would not result in a perceptible change in noise level. Therefore, the proposed project would not result in a cumulatively considerable impact related to roadway noise.

TABLE 4-12: CUMULATIVE MOBILE SOURCE NOISE LEVELS

	Estimated dBA, L_{eq}		
Roadway	**Existing**	**Project**	**Cumulative Impact**
Whitsett Avenue between Riverside Drive and Moorpark Street	69.9	70.4	0.5
Whitsett Avenue between Moorpark Street and Ventura Boulevard	69.3	69.9	0.6
Moorpark Street between Coldwater Canyon and Whitsett Avenues	70.2	70.7	0.5
Moorpark Street between Whitsett Avenue and Laurel Canyon Boulevard	70	70.5	0.5

SOURCE: TAHA, 2012.

The predominant vibration source near the project site is heavy truck travel on the local roadways. Neither the proposed project nor related projects would substantially increase heavy-duty vehicle traffic near the project site and would not cause a substantial increase in heavy-duty trucks on local roadways. The proposed project would not result in a cumulatively considerable impact related to roadway vibration.

Air Quality Appendix

A. Wind and Climate Information
B. Ambient Air Data
C. Construction Emissions – CalEEMod Output Files
D. Operational Emissions – CalEEMod Output Files
E. CO Hot Spot Analysis
F. SCAQMD Rule 403
G. Greenhouse Gas Emissions – CalEEMod Output Files

Appendix A

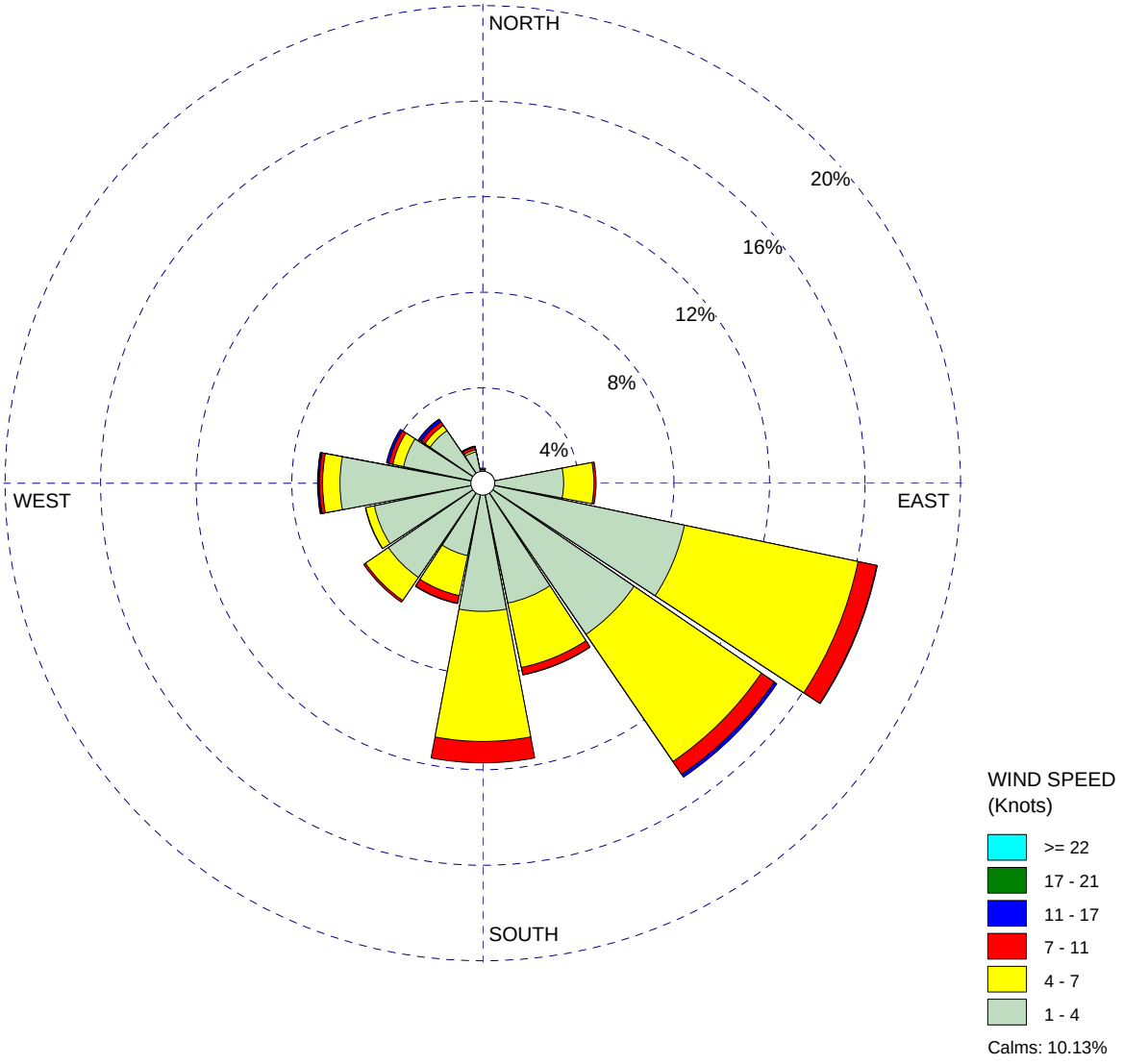
Wind and Climate Information

WIND ROSE PLOT:

Weddington Golf and Senior Housing Project

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/1981 - 00:00** **End Date: 12/31/1981 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **10.13%**	TOTAL COUNT: **8760 hrs.**	
	AVG. WIND SPEED: **3.30 Knots**	DATE: **2/29/2012**	PROJECT NO.:

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1971-2000 Normals (~3 KB)

1961 - 1990

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1961-1990 Normals (~3 KB)

Period of Record

- Station Metadata
- Station Metadata Graphics

General Climate Summary Tables
- Temperature
- Precipitation
- Heating Degree Days
- Cooling Degree Days
- Growing Degree Days

Temperature
- Daily Extremes and Averages
- Spring 'Freeze' Probabilities
- Fall 'Freeze' Probabilities
- 'Freeze Free' Probabilities
- Monthly Temperature Listings
  - Average
  - Average Maximum
  - Average Minimum

Precipitation
- Monthly Average
- Daily Extreme and Average
- Daily Average
- Precipitation Probability by Duration.
- Precipitation Probability by Quantity.
- Monthly Precipitation Listings

Period of Record General Climate Summary - Precipitation

Station:(041194) BURBANK VALLEY PUMP PLA															
From Year=1939 To Year=2006															
	Precipitation											Total Snowfall			
	Mean	High	Year	Low	Year	1 Day Max.		>= 0.01 in.	>= 0.10 in.	>= 0.50 in.	>= 1.00 in.	Mean	High	Year	
	in.	in.	-	in.	-	in.	dd/yyyy or yyyymmdd	# Days	# Days	# Days	# Days	in.	in.	-	
January	3.37	15.92	1995	0.00	1948	7.76	22/1943	6	4	2	1	0.1	4.7	1949	
February	3.94	15.52	1998	0.00	1964	4.50	08/1993	6	4	2	1	0.0	0.0	1940	
March	2.91	12.87	1978	0.00	1956	5.45	01/1983	6	4	2	1	0.0	0.5	1950	
April	1.18	5.66	1965	0.00	1962	2.30	12/1956	4	2	1	0	0.0	0.0	1940	
May	0.28	4.37	1998	0.00	1942	2.29	08/1977	2	1	0	0	0.0	0.0	1940	
June	0.07	1.04	1993	0.00	1940	1.01	05/1993	1	0	0	0	0.0	0.0	1940	
July	0.01	0.21	1986	0.00	1940	0.18	12/1992	0	0	0	0	0.0	0.0	1940	
August	0.11	2.97	1977	0.00	1940	2.86	17/1977	1	0	0	0	0.0	0.0	1940	
September	0.20	3.39	1976	0.00	1940	1.43	10/1976	1	1	0	0	0.0	0.0	1940	
October	0.59	7.26	2004	0.00	1953	3.00	19/2004	2	1	0	0	0.0	0.0	1940	
November	1.54	10.63	1965	0.00	1948	5.28	29/1970	3	2	1	0	0.0	0.0	1940	
December	2.30	8.07	1940	0.00	1950	5.30	29/1965	5	3	2	1	0.0	0.0	1939	
Annual	16.51	39.77	1983	3.52	1947	7.76	19430122	36	23	10	5	0.1	4.7	1949	
Winter	9.62	32.33	2005	1.81	1961	7.76	19430122	17	12	6	3	0.1	4.7	1949	
Spring	4.37	18.19	1983	0.00	1997	5.45	19830301	12	7	3	1	0.0	0.5	1950	
Summer	0.19	2.97	1977	0.00	1940	2.86	19770817	2	0	0	0	0.0	0.0	1940	
Fall	2.33	11.38	1965	0.00	1980	5.28	19701129	6	4	2	1	0.0	0.0	1940	

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1971-2000 Normals (~3 KB)

1961 - 1990

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
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- Station Metadata
- Station Metadata Graphics

General Climate Summary Tables
- Temperature
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- Daily Extremes and Averages
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- Fall 'Freeze' Probabilities
- 'Freeze Free' Probabilities
- Monthly Temperature Listings
  - Average
  - Average Maximum
  - Average Minimum

Precipitation
- Monthly Average
- Daily Extreme and Average
- Daily Average
- Precipitation Probability by Duration.
- Precipitation Probability by Quantity.
- Monthly Precipitation Listings

Period of Record General Climate Summary - Temperature

Station:(041194) BURBANK VALLEY PUMP PLA															
From Year=1939 To Year=2006															
	Monthly Averages			Daily Extremes				Monthly Extremes				Max. Temp.		Min. Temp.	
	Max.	Min.	Mean	High	Date	Low	Date	Highest Mean	Year	Lowest Mean	Year	>= 90 F	<= 32 F	<= 32 F	<= 0 F
	F	F	F	F	dd/yyyy or yyyymmdd	F	dd/yyyy or yyyymmdd	F	-	F	-	# Days	# Days	# Days	# Days
January	67.3	41.6	54.4	93	31/2003	22	29/1979	63.4	2003	45.1	1949	0.1	0.0	1.7	0.0
February	68.8	43.6	56.2	92	16/1977	27	15/1942	61.9	1954	50.7	1949	0.2	0.0	0.6	0.0
March	70.4	45.7	58.0	98	26/1988	22	07/1980	64.5	2004	52.7	1952	0.4	0.0	0.4	0.0
April	73.9	49.0	61.5	105	06/1989	32	05/1978	68.1	1989	53.4	1967	1.7	0.0	0.0	0.0
May	76.7	53.4	65.1	107	29/1984	39	21/1975	71.8	1984	60.6	1998	2.4	0.0	0.0	0.0
June	81.5	57.2	69.3	111	27/1976	43	14/1943	77.7	1981	64.0	1944	4.8	0.0	0.0	0.0
July	88.5	61.0	74.7	108	26/1943	45	02/1979	79.7	1984	69.0	1944	13.6	0.0	0.0	0.0
August	89.2	61.3	75.2	111	26/1944	46	28/1975	80.4	1994	71.7	1948	14.6	0.0	0.0	0.0
September	87.2	59.1	73.2	113	12/1971	43	26/1941	81.4	1984	67.3	1986	11.8	0.0	0.0	0.0
October	81.0	53.3	67.1	108	01/1980	33	30/1971	72.3	1991	62.7	2002	5.9	0.0	0.0	0.0
November	73.5	45.9	59.7	98	03/1976	29	30/1975	65.0	1949	54.0	1994	1.0	0.0	0.2	0.0
December	68.0	41.7	54.9	92	03/1958	22	08/1978	59.6	1958	49.3	1971	0.0	0.0	1.4	0.0
Annual	77.2	51.1	64.1	113	19710912	22	19781208	66.7	1984	61.9	1944	56.5	0.0	4.2	0.0
Winter	68.1	42.3	55.2	93	20030131	22	19781208	59.1	1981	48.6	1949	0.3	0.0	3.6	0.0
Spring	73.7	49.4	61.5	107	19840529	22	19800307	66.1	1993	58.2	1999	4.4	0.0	0.4	0.0
Summer	86.4	59.8	73.1	111	19440826	43	19430614	77.3	1981	69.1	1944	33.0	0.0	0.0	0.0
Fall	80.6	52.8	66.7	113	19710912	29	19751130	70.2	1991	63.9	1973	18.7	0.0	0.2	0.0

Table updated on Jul 28, 2006

For monthly and annual means, thresholds, and sums:
Months with 5 or more missing days are not considered
Years with 1 or more missing months are not considered
Seasons are climatological not calendar seasons
Winter = Dec., Jan., and Feb. Spring = Mar., Apr., and May
Summer = Jun., Jul., and Aug. Fall = Sep., Oct., and Nov.

Western Regional Climate Center, wrcc@dri.edu

Appendix B

Ambient Air Data

Air Resources Board

iADAM

Highest 4 Daily Maximum Hourly Ozone Measurements

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 18	0.133	Aug 31	0.145	Sep 26	0.111
Second High:	Jun 21	0.122	Aug 27	0.121	Sep 4	0.103
Third High:	Aug 2	0.118	Jul 19	0.118	Jun 5	0.096
Fourth High:	Jun 22	0.117	May 17	0.108	Jul 14	0.092
# Days Above State Standard:	20		16		3	
California Designation Value:	0.14		0.13		0.12	
Expected Peak Day Conc.:	0.137		0.125		0.120	
# Days Above Nat'l Standard:	*1*		*1*		*0*	
National Design Value:	*0.138*		*0.121*		*0.121*	
Year Coverage:	98		97		92	

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:

All concentrations are expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics*.

State exceedances are shown in yellow. Exceedances of the revoked national 1-hour standard are shown in *orange*.

An exceedance is not necessarily a violation.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* There was insufficient (or no) data available to determine the value.

Switch: 8-Hour Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Air Resources Board

iADAM

Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Nov 13	0.105	Aug 31	0.088	Jan 7	0.082
Second High:	Oct 29	0.095	Nov 2	0.083	Aug 26	0.069
Third High:	Jun 20	0.094	Mar 18	0.077	Sep 24	0.069
Fourth High:	Oct 27	0.090	Oct 25	0.075	Jan 6	0.069
# Days Above State Standard:	0		0		0	
Annual Average:	0.029		0.027		0.024	
Year Coverage:	97		85		76	

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:
All averages are expressed in parts per million.
National exceedances are shown in orange. State exceedances are shown in yellow.
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM2.5 | PM10 | Carbon Monoxide | Sulfur Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily Maximum 8-Hour Ozone Averages

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	May 18	0.109	Aug 31	0.096	Jun 5	0.084
Second High:	Jun 21	0.095	Jul 19	0.094	Sep 26	0.079
Third High:	Jun 15	0.093	Aug 29	0.090	Sep 4	0.078
Fourth High:	Aug 2	0.092	Jul 18	0.086	Sep 25	0.076
California:						
First High:	May 18	0.110	Aug 31	0.097	Jun 5	0.084
Second High:	Jun 21	0.095	Jul 19	0.095	Sep 26	0.080
Third High:	Jun 15	0.094	Aug 29	0.090	Sep 4	0.079
Fourth High:	Aug 2	0.092	Jul 18	0.086	Sep 25	0.077
National:						
# Days Above '08 Nat'l Std.:		17		14		4
'08 Nat'l Std. Design Value:		0.092		0.088		0.084
National Year Coverage:		98		98		93
California:						
# Days Above State Standard:		34		28		9
California Designation Value:		0.110		0.097		0.097
Expected Peak Day Conc.:		0.110		0.101		0.098
California Year Coverage:		97		97		92

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:
All averages are expressed in parts per million.
National exceedances are shown in orange. State exceedances are shown in yellow.
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	Feb 9	2.48	Jan 1	2.89	Dec 4	2.35
Second High:	Nov 14	2.41	Nov 26	2.50	Jan 8	2.33
Third High:	Nov 22	2.40	Jan 8	2.39	Dec 3	2.30
Fourth High:	Nov 18	2.28	Jan 7	2.29	Dec 9	2.24
California:						
First High:	Feb 8	2.48	Jan 1	2.89	Dec 3	2.35
Second High:	Nov 13	2.41	Nov 25	2.50	Jan 7	2.33
Third High:	Nov 21	2.40	Jan 8	2.39	Dec 9	2.24
Fourth High:	Nov 17	2.28	Jan 7	2.29	Dec 2	2.24
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Year Coverage:		97		97		85

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:
All averages are expressed in parts per million.
National exceedances are shown in orange. State exceedances are shown in yellow.
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM2.5 | PM10 | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily 24-Hour PM10 Averages

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Dec 2	66.0	Jan 1	80.0	Aug 24	51.0
Second High:	Nov 20	65.0	Sep 22	76.0	Jun 1	50.0
Third High:	Jun 5	56.0	Mar 20	65.0	Jul 19	46.0
Fourth High:	Oct 21	53.0	Jan 7	63.0	Jan 14	43.0
California:						
First High:	Dec 2	61.0	Sep 22	76.0		*
Second High:	Nov 20	60.0	Jan 1	75.0		*
Third High:	Jun 5	55.0	Mar 20	66.0		*
Fourth High:	Mar 25	51.0	Aug 11	62.0		*
Measured:						
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		5		10		*
Estimated:						
3-Yr Avg # Days Above Nat'l Std:		*		*		*
# Days Above Nat'l Standard:		0.0		0.0		*
# Days Above State Standard:		*		60.9		*
State 3-Yr Maximum Average:		*		39		*
State Annual Average:		*		38.9		*
National 3-Year Average:		*30*		*33*		*34*
National Annual Average:		*35.6*		*39.2*		*27.5*
Year Coverage:		86		97		95

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:

All concentrations are expressed in micrograms per cubic meter.

The national annual average PM10 standard was revoked in December 2006 and is no longer in effect.
Statistics related to the revoked standard are shown in *italics* or *italics*.

National exceedances are shown in orange. State exceedances are shown in yellow.

An exceedance is not necessarily a violation.

Statistics may include data that are related to an exceptional event.

State and national statistics may differ for the following reasons:

State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.

State statistics for 1998 and later are based on *local* conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions). National statistics are based on *standard* conditions.

State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.

3-Year statistics represent the listed year and the 2 years before the listed year.

Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.

* There was insufficient (or no) data available to determine the value.

Switch:	Hourly Ozone	8-Hour Ozone	PM2.5	Carbon Monoxide	Nitrogen Dioxide	Sulfur Dioxide	Hydrogen Sulfide

Go to:	Data Statistics Home Page	Top 4 Summaries Start Page

Air Resources Board

iADAM

Highest 4 Daily 24-Hour PM2.5 Averages

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
National:						
First High:	Jul 5	57.4	Jan 1	67.5	Oct 16	43.7
Second High:	Nov 23	50.4	Jan 2	53.0	Oct 14	38.7
Third High:	Jan 10	34.6	Mar 20	51.4	Oct 15	37.0
Fourth High:	Feb 18	32.5	Nov 8	43.9	Dec 4	36.5
California:						
First High:	Jul 5	68.9	Jan 1	67.5	Oct 16	43.7
Second High:	Jul 4	52.8	Mar 20	51.4	Oct 14	38.7
Third High:	Nov 23	50.4	Dec 26	38.2	Oct 15	37.0
Fourth High:	Jul 7	46.1	Dec 27	36.9	Dec 4	36.5
Estimated Days > Nat'l 24-Hr Std:		6.1		11.8		4.0
Measured Days > Nat'l 24-Hr Std:		2		11		4
Nat'l 24-Hr Std Design Value:		43		41		34
Nat'l 24-Hr Std 98th Percentile:		34.6		36.9		30.8
National Annual Std Design Value:		15.8		15.4		14.0
National Annual Average:		13.9		15.3		12.7
State Ann'l Std Designation Value:		14		14		14
State Annual Average:		13.9		14.3		12.4
Year Coverage:		95		100		100

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in micrograms per cubic meter.
National exceedances are shown in orange. State exceedances are shown in yellow.
An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods. State and national statistics may therefore be based on different samplers.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily Maximum State 24-Hour Sulfur Dioxide Averages

Burbank-W Palm Avenue

FAQs

Year:	2008		2009		2010	
	Date	24-Hr Average	Date	24-Hr Average	Date	24-Hr Average
First High:	Jul 5	0.003	Aug 6	0.003	Feb 26	0.004
Second High:	Jan 16	0.003	Aug 5	0.003	Jan 5	0.004
Third High:	Apr 14	0.003	Aug 2	0.003	Feb 28	0.004
Fourth High:	Jun 22	0.003	Aug 3	0.002	Jan 4	0.004
Annual Average:		0.000		*		*
Year Coverage:		97		49		83

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes:
All averages are expressed in parts per million.
State exceedances are shown in yellow.
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM2.5 | PM10 | Carbon Monoxide | Nitrogen Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Appendix C

Construction Emissions – CalEEMod Output Files

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

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					
2014	8.24	69.11	49.13	0.10	191.33	3.17	194.50	6.76	3.17	9.93	0.00	9,543.47	0.00	0.68	0.00	9,557.79
2015	37.30	39.48	46.63	0.10	5.08	2.17	7.25	0.22	2.17	2.38	0.00	9,476.37	0.00	0.58	0.00	9,488.47
2016	37.25	2.66	5.39	0.01	0.87	0.23	1.10	0.03	0.23	0.26	0.00	977.01	0.00	0.07	0.00	978.46
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2014	8.24	69.11	49.13	0.10	183.95	3.17	187.12	2.72	3.17	5.89	0.00	9,543.47	0.00	0.68	0.00	9,557.79
2015	37.30	39.48	46.63	0.10	5.08	2.17	7.25	0.22	2.17	2.38	0.00	9,476.37	0.00	0.58	0.00	9,488.47
2016	37.25	2.66	5.39	0.01	0.87	0.23	1.10	0.03	0.23	0.26	0.00	977.01	0.00	0.07	0.00	978.46
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

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					0.26	0.00	0.26	0.00	0.00	0.00						0.00
Off-Road	7.49	59.54	35.71	0.06		2.85	2.85		2.85	2.85		6,614.67		0.67		6,628.74
Total	**7.49**	**59.54**	**35.71**	**0.06**	**0.26**	**2.85**	**3.11**	**0.00**	**2.85**	**2.85**		**6,614.67**		**0.67**		**6,628.74**

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	0.06	0.58	0.34	0.00	1.17	0.03	1.19	0.00	0.03	0.03		100.43		0.00		100.49
Vendor	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
Worker	0.08	0.08	0.93	0.00	0.20	0.01	0.21	0.01	0.01	0.01		164.33		0.01		164.53
Total	**0.14**	**0.66**	**1.27**	**0.00**	**1.37**	**0.04**	**1.40**	**0.01**	**0.04**	**0.04**		**264.76**		**0.01**		**265.02**

3.2 Demolition - 2014

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					0.10	0.00	0.10	0.00	0.00	0.00						0.00
Off-Road	7.49	59.54	35.71	0.06		2.85	2.85		2.85	2.85	0.00	6,614.67		0.67		6,628.74
Total	**7.49**	**59.54**	**35.71**	**0.06**	**0.10**	**2.85**	**2.95**	**0.00**	**2.85**	**2.85**	**0.00**	**6,614.67**		**0.67**		**6,628.74**

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	0.06	0.58	0.34	0.00	1.17	0.03	1.19	0.00	0.03	0.03		100.43		0.00		100.49
Vendor	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
Worker	0.08	0.08	0.93	0.00	0.20	0.01	0.21	0.01	0.01	0.01		164.33		0.01		164.53
Total	**0.14**	**0.66**	**1.27**	**0.00**	**1.37**	**0.04**	**1.40**	**0.01**	**0.04**	**0.04**		**264.76**		**0.01**		**265.02**

3.3 Site Preparation - 2014

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					12.10	0.00	12.10	6.63	0.00	6.63						0.00
Off-Road	5.91	47.66	26.84	0.05		2.23	2.23		2.23	2.23		5,056.41		0.53		5,067.53
Total	**5.91**	**47.66**	**26.84**	**0.05**	**12.10**	**2.23**	**14.33**	**6.63**	**2.23**	**8.86**		**5,056.41**		**0.53**		**5,067.53**

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	2.24	21.36	12.36	0.04	179.00	0.94	179.94	0.12	0.94	1.06		3,684.87		0.11		3,687.15
Vendor	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
Worker	0.09	0.09	1.08	0.00	0.23	0.01	0.24	0.01	0.01	0.02		189.61		0.01		189.84
Total	**2.33**	**21.45**	**13.44**	**0.04**	**179.23**	**0.95**	**180.18**	**0.13**	**0.95**	**1.08**		**3,874.48**		**0.12**		**3,876.99**

3.3 Site Preparation - 2014

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					4.72	0.00	4.72	2.59	0.00	2.59						0.00
Off-Road	5.91	47.66	26.84	0.05		2.23	2.23		2.23	2.23	0.00	5,056.41		0.53		5,067.53
Total	**5.91**	**47.66**	**26.84**	**0.05**	**4.72**	**2.23**	**6.95**	**2.59**	**2.23**	**4.82**	**0.00**	**5,056.41**		**0.53**		**5,067.53**

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	2.24	21.36	12.36	0.04	179.00	0.94	179.94	0.12	0.94	1.06		3,684.87		0.11		3,687.15
Vendor	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
Worker	0.09	0.09	1.08	0.00	0.23	0.01	0.24	0.01	0.01	0.02		189.61		0.01		189.84
Total	**2.33**	**21.45**	**13.44**	**0.04**	**179.23**	**0.95**	**180.18**	**0.13**	**0.95**	**1.08**		**3,874.48**		**0.12**		**3,876.99**

3.4 Building Construction - 2014

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	4.04	30.13	21.10	0.04		1.85	1.85		1.85	1.85		3,833.33		0.36		3,840.91
Total	**4.04**	**30.13**	**21.10**	**0.04**		**1.85**	**1.85**		**1.85**	**1.85**		**3,833.33**		**0.36**		**3,840.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.12	11.69	7.55	0.02	0.71	0.42	1.13	0.05	0.42	0.47		2,107.50		0.06		2,108.67
Worker	1.78	1.72	20.48	0.04	4.37	0.15	4.53	0.16	0.15	0.32		3,602.64		0.21		3,606.96
Total	**2.90**	**13.41**	**28.03**	**0.06**	**5.08**	**0.57**	**5.66**	**0.21**	**0.57**	**0.79**		**5,710.14**		**0.27**		**5,715.63**

3.4 Building Construction - 2014

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	4.04	30.13	21.10	0.04		1.85	1.85		1.85	1.85	0.00	3,833.33		0.36		3,840.91
Total	**4.04**	**30.13**	**21.10**	**0.04**		**1.85**	**1.85**		**1.85**	**1.85**	**0.00**	**3,833.33**		**0.36**		**3,840.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.12	11.69	7.55	0.02	0.71	0.42	1.13	0.05	0.42	0.47		2,107.50		0.06		2,108.67
Worker	1.78	1.72	20.48	0.04	4.37	0.15	4.53	0.16	0.15	0.32		3,602.64		0.21		3,606.96
Total	**2.90**	**13.41**	**28.03**	**0.06**	**5.08**	**0.57**	**5.66**	**0.21**	**0.57**	**0.79**		**5,710.14**		**0.27**		**5,715.63**

3.4 Building Construction - 2015

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	3.72	27.29	20.95	0.04		1.64	1.64		1.64	1.64		3,833.33		0.33		3,840.34
Total	**3.72**	**27.29**	**20.95**	**0.04**		**1.64**	**1.64**		**1.64**	**1.64**		**3,833.33**		**0.33**		**3,840.34**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.01	10.61	6.83	0.02	0.71	0.37	1.08	0.05	0.37	0.43		2,112.70		0.05		2,113.75
Worker	1.66	1.58	18.85	0.04	4.37	0.16	4.53	0.16	0.16	0.32		3,530.34		0.19		3,534.37
Total	**2.67**	**12.19**	**25.68**	**0.06**	**5.08**	**0.53**	**5.61**	**0.21**	**0.53**	**0.75**		**5,643.04**		**0.24**		**5,648.12**

3.4 Building Construction - 2015

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	3.72	27.29	20.95	0.04		1.64	1.64		1.64	1.64	0.00	3,833.33		0.33		3,840.34
Total	**3.72**	**27.29**	**20.95**	**0.04**		**1.64**	**1.64**		**1.64**	**1.64**	**0.00**	**3,833.33**		**0.33**		**3,840.34**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.01	10.61	6.83	0.02	0.71	0.37	1.08	0.05	0.37	0.43		2,112.70		0.05		2,113.75
Worker	1.66	1.58	18.85	0.04	4.37	0.16	4.53	0.16	0.16	0.32		3,530.34		0.19		3,534.37
Total	**2.67**	**12.19**	**25.68**	**0.06**	**5.08**	**0.53**	**5.61**	**0.21**	**0.53**	**0.75**		**5,643.04**		**0.24**		**5,648.12**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.77	4.69	3.11	0.00		0.40	0.40		0.40	0.40		435.20		0.07		436.67
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.77**	**4.69**	**3.11**	**0.00**		**0.40**	**0.40**		**0.40**	**0.40**		**435.20**		**0.07**		**436.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		37.16		0.00		37.20
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**37.16**		**0.00**		**37.20**

3.5 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.77	4.69	3.11	0.00		0.40	0.40		0.40	0.40	0.00	435.20		0.07		436.67
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.77**	**4.69**	**3.11**	**0.00**		**0.40**	**0.40**		**0.40**	**0.40**	**0.00**	**435.20**		**0.07**		**436.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00		37.16		0.00		37.20
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**37.16**		**0.00**		**37.20**

3.6 Architectural Coating - 2015

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**36.98**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.33	0.32	3.77	0.01	0.87	0.03	0.91	0.03	0.03	0.06		706.07		0.04		706.87
Total	**0.33**	**0.32**	**3.77**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**706.07**		**0.04**		**706.87**

3.6 Architectural Coating - 2015

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**36.98**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.33	0.32	3.77	0.01	0.87	0.03	0.91	0.03	0.03	0.06		706.07		0.04		706.87
Total	**0.33**	**0.32**	**3.77**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**706.07**		**0.04**		**706.87**

3.6 Architectural Coating - 2016

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	**36.94**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**		**281.19**		**0.03**		**281.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.31	0.29	3.51	0.01	0.87	0.03	0.91	0.03	0.03	0.06		695.82		0.04		696.58
Total	**0.31**	**0.29**	**3.51**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**695.82**		**0.04**		**696.58**

3.6 Architectural Coating - 2016

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	**36.94**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**281.19**		**0.03**		**281.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.31	0.29	3.51	0.01	0.87	0.03	0.91	0.03	0.03	0.06		695.82		0.04		696.58
Total	**0.31**	**0.29**	**3.51**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**695.82**		**0.04**		**696.58**

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

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					
2014	8.30	70.24	49.03	0.09	191.33	3.18	194.51	6.76	3.18	9.94	0.00	9,263.09	0.00	0.68	0.00	9,277.40
2015	37.33	40.16	46.54	0.09	5.08	2.17	7.26	0.22	2.17	2.39	0.00	9,200.55	0.00	0.57	0.00	9,212.55
2016	37.27	2.71	5.18	0.01	0.87	0.23	1.10	0.03	0.23	0.26	0.00	925.77	0.00	0.07	0.00	927.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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					
2014	8.30	70.24	49.03	0.09	183.95	3.18	187.13	2.72	3.18	5.89	0.00	9,263.09	0.00	0.68	0.00	9,277.40
2015	37.33	40.16	46.54	0.09	5.08	2.17	7.26	0.22	2.17	2.39	0.00	9,200.55	0.00	0.57	0.00	9,212.55
2016	37.27	2.71	5.18	0.01	0.87	0.23	1.10	0.03	0.23	0.26	0.00	925.77	0.00	0.07	0.00	927.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

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					0.26	0.00	0.26	0.00	0.00	0.00						0.00
Off-Road	7.49	59.54	35.71	0.06		2.85	2.85		2.85	2.85		6,614.67		0.67		6,628.74
Total	**7.49**	**59.54**	**35.71**	**0.06**	**0.26**	**2.85**	**3.11**	**0.00**	**2.85**	**2.85**		**6,614.67**		**0.67**		**6,628.74**

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	0.06	0.61	0.36	0.00	1.17	0.03	1.19	0.00	0.03	0.03		99.95		0.00		100.01
Vendor	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
Worker	0.09	0.09	0.88	0.00	0.20	0.01	0.21	0.01	0.01	0.01		152.24		0.01		152.43
Total	**0.15**	**0.70**	**1.24**	**0.00**	**1.37**	**0.04**	**1.40**	**0.01**	**0.04**	**0.04**		**252.19**		**0.01**		**252.44**

3.2 Demolition - 2014

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					0.10	0.00	0.10	0.00	0.00	0.00						0.00
Off-Road	7.49	59.54	35.71	0.06		2.85	2.85		2.85	2.85	0.00	6,614.67		0.67		6,628.74
Total	**7.49**	**59.54**	**35.71**	**0.06**	**0.10**	**2.85**	**2.95**	**0.00**	**2.85**	**2.85**	**0.00**	**6,614.67**		**0.67**		**6,628.74**

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	0.06	0.61	0.36	0.00	1.17	0.03	1.19	0.00	0.03	0.03		99.95		0.00		100.01
Vendor	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
Worker	0.09	0.09	0.88	0.00	0.20	0.01	0.21	0.01	0.01	0.01		152.24		0.01		152.43
Total	**0.15**	**0.70**	**1.24**	**0.00**	**1.37**	**0.04**	**1.40**	**0.01**	**0.04**	**0.04**		**252.19**		**0.01**		**252.44**

3.3 Site Preparation - 2014

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					12.10	0.00	12.10	6.63	0.00	6.63						0.00
Off-Road	5.91	47.66	26.84	0.05		2.23	2.23		2.23	2.23		5,056.41		0.53		5,067.53
Total	**5.91**	**47.66**	**26.84**	**0.05**	**12.10**	**2.23**	**14.33**	**6.63**	**2.23**	**8.86**		**5,056.41**		**0.53**		**5,067.53**

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	2.29	22.48	13.38	0.04	179.00	0.94	179.95	0.12	0.94	1.07		3,667.27		0.11		3,669.61
Vendor	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
Worker	0.10	0.11	1.02	0.00	0.23	0.01	0.24	0.01	0.01	0.02		175.66		0.01		175.88
Total	**2.39**	**22.59**	**14.40**	**0.04**	**179.23**	**0.95**	**180.19**	**0.13**	**0.95**	**1.09**		**3,842.93**		**0.12**		**3,845.49**

3.3 Site Preparation - 2014

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					4.72	0.00	4.72	2.59	0.00	2.59						0.00
Off-Road	5.91	47.66	26.84	0.05		2.23	2.23		2.23	2.23	0.00	5,056.41		0.53		5,067.53
Total	**5.91**	**47.66**	**26.84**	**0.05**	**4.72**	**2.23**	**6.95**	**2.59**	**2.23**	**4.82**	**0.00**	**5,056.41**		**0.53**		**5,067.53**

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	2.29	22.48	13.38	0.04	179.00	0.94	179.95	0.12	0.94	1.07		3,667.27		0.11		3,669.61
Vendor	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
Worker	0.10	0.11	1.02	0.00	0.23	0.01	0.24	0.01	0.01	0.02		175.66		0.01		175.88
Total	**2.39**	**22.59**	**14.40**	**0.04**	**179.23**	**0.95**	**180.19**	**0.13**	**0.95**	**1.09**		**3,842.93**		**0.12**		**3,845.49**

3.4 Building Construction - 2014

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	4.04	30.13	21.10	0.04		1.85	1.85		1.85	1.85		3,833.33		0.36		3,840.91
Total	**4.04**	**30.13**	**21.10**	**0.04**		**1.85**	**1.85**		**1.85**	**1.85**		**3,833.33**		**0.36**		**3,840.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.18	12.21	8.57	0.02	0.71	0.42	1.13	0.05	0.42	0.48		2,092.19		0.06		2,093.42
Worker	1.93	2.00	19.36	0.03	4.37	0.15	4.53	0.16	0.15	0.32		3,337.57		0.20		3,341.71
Total	**3.11**	**14.21**	**27.93**	**0.05**	**5.08**	**0.57**	**5.66**	**0.21**	**0.57**	**0.80**		**5,429.76**		**0.26**		**5,435.13**

3.4 Building Construction - 2014

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	4.04	30.13	21.10	0.04		1.85	1.85		1.85	1.85	0.00	3,833.33		0.36		3,840.91
Total	**4.04**	**30.13**	**21.10**	**0.04**		**1.85**	**1.85**		**1.85**	**1.85**	**0.00**	**3,833.33**		**0.36**		**3,840.91**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.18	12.21	8.57	0.02	0.71	0.42	1.13	0.05	0.42	0.48		2,092.19		0.06		2,093.42
Worker	1.93	2.00	19.36	0.03	4.37	0.15	4.53	0.16	0.15	0.32		3,337.57		0.20		3,341.71
Total	**3.11**	**14.21**	**27.93**	**0.05**	**5.08**	**0.57**	**5.66**	**0.21**	**0.57**	**0.80**		**5,429.76**		**0.26**		**5,435.13**

3.4 Building Construction - 2015

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	3.72	27.29	20.95	0.04		1.64	1.64		1.64	1.64		3,833.33		0.33		3,840.34
Total	**3.72**	**27.29**	**20.95**	**0.04**		**1.64**	**1.64**		**1.64**	**1.64**		**3,833.33**		**0.33**		**3,840.34**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.07	11.04	7.83	0.02	0.71	0.38	1.09	0.05	0.38	0.43		2,096.93		0.05		2,098.04
Worker	1.80	1.83	17.76	0.03	4.37	0.16	4.53	0.16	0.16	0.32		3,270.30		0.18		3,274.17
Total	**2.87**	**12.87**	**25.59**	**0.05**	**5.08**	**0.54**	**5.62**	**0.21**	**0.54**	**0.75**		**5,367.23**		**0.23**		**5,372.21**

3.4 Building Construction - 2015

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	3.72	27.29	20.95	0.04		1.64	1.64		1.64	1.64	0.00	3,833.33		0.33		3,840.34
Total	**3.72**	**27.29**	**20.95**	**0.04**		**1.64**	**1.64**		**1.64**	**1.64**	**0.00**	**3,833.33**		**0.33**		**3,840.34**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	1.07	11.04	7.83	0.02	0.71	0.38	1.09	0.05	0.38	0.43		2,096.93		0.05		2,098.04
Worker	1.80	1.83	17.76	0.03	4.37	0.16	4.53	0.16	0.16	0.32		3,270.30		0.18		3,274.17
Total	**2.87**	**12.87**	**25.59**	**0.05**	**5.08**	**0.54**	**5.62**	**0.21**	**0.54**	**0.75**		**5,367.23**		**0.23**		**5,372.21**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.77	4.69	3.11	0.00		0.40	0.40		0.40	0.40		435.20		0.07		436.67
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.77**	**4.69**	**3.11**	**0.00**		**0.40**	**0.40**		**0.40**	**0.40**		**435.20**		**0.07**		**436.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00		34.42		0.00		34.46
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**34.42**		**0.00**		**34.46**

3.5 Paving - 2015

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.77	4.69	3.11	0.00		0.40	0.40		0.40	0.40	0.00	435.20		0.07		436.67
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	**0.77**	**4.69**	**3.11**	**0.00**		**0.40**	**0.40**		**0.40**	**0.40**	**0.00**	**435.20**		**0.07**		**436.67**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00		34.42		0.00		34.46
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**		**34.42**		**0.00**		**34.46**

3.6 Architectural Coating - 2015

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22		281.19		0.04		281.96
Total	**36.98**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**		**281.19**		**0.04**		**281.96**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.36	0.37	3.55	0.01	0.87	0.03	0.91	0.03	0.03	0.06		654.06		0.04		654.83
Total	**0.36**	**0.37**	**3.55**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**654.06**		**0.04**		**654.83**

3.6 Architectural Coating - 2015

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.41	2.57	1.90	0.00		0.22	0.22		0.22	0.22	0.00	281.19		0.04		281.96
Total	**36.98**	**2.57**	**1.90**	**0.00**		**0.22**	**0.22**		**0.22**	**0.22**	**0.00**	**281.19**		**0.04**		**281.96**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.36	0.37	3.55	0.01	0.87	0.03	0.91	0.03	0.03	0.06		654.06		0.04		654.83
Total	**0.36**	**0.37**	**3.55**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**654.06**		**0.04**		**654.83**

3.6 Architectural Coating - 2016

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20		281.19		0.03		281.89
Total	**36.94**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**		**281.19**		**0.03**		**281.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.34	0.34	3.29	0.01	0.87	0.03	0.91	0.03	0.03	0.06		644.58		0.03		645.31
Total	**0.34**	**0.34**	**3.29**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**644.58**		**0.03**		**645.31**

3.6 Architectural Coating - 2016

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	36.57					0.00	0.00		0.00	0.00						0.00
Off-Road	0.37	2.37	1.88	0.00		0.20	0.20		0.20	0.20	0.00	281.19		0.03		281.89
Total	**36.94**	**2.37**	**1.88**	**0.00**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**281.19**		**0.03**		**281.89**

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	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
Worker	0.34	0.34	3.29	0.01	0.87	0.03	0.91	0.03	0.03	0.06		644.58		0.03		645.31
Total	**0.34**	**0.34**	**3.29**	**0.01**	**0.87**	**0.03**	**0.91**	**0.03**	**0.03**	**0.06**		**644.58**		**0.03**		**645.31**

Appendix D

Operational Emissions – CalEEMod Output Files

Weddington Golf and Senior Housing Project-Existing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by approximately 61 percent.

Energy Mitigation - Proposed project energy performance goal will be 20 percent more effective than required by California Title 24 Energy Design Standards.

Land Use - The existing site will include golf driving range, golf course, and tennis courts.

Vehicle Trips - The total daily trips at the existing site uses will be approximately 1,147.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	6.28	14.85	61.38	0.09	9.17	0.58	9.75	0.32	0.58	0.89		8,737.36		0.50		8,747.94
Total	**6.28**	**14.85**	**61.38**	**0.09**	**9.17**	**0.58**	**9.75**	**0.32**	**0.58**	**0.89**		**8,737.36**		**0.50**	**0.00**	**8,747.94**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	6.28	14.85	61.38	0.09	9.17	0.58	9.75	0.32	0.58	0.89		8,737.36		0.50		8,747.94
Total	**6.28**	**14.85**	**61.38**	**0.09**	**9.17**	**0.58**	**9.75**	**0.32**	**0.58**	**0.89**		**8,737.36**		**0.50**	**0.00**	**8,747.94**

4.0 Mobile Detail

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	6.28	14.85	61.38	0.09	9.17	0.58	9.75	0.32	0.58	0.89		8,737.36		0.50		8,747.94
Unmitigated	6.28	14.85	61.38	0.09	9.17	0.58	9.75	0.32	0.58	0.89		8,737.36		0.50		8,747.94
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	0.00	0.00	1,978,070	1,978,070
Total	1,147.00	0.00	0.00	1,978,070	1,978,070

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project-Existing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by approximately 61 percent.

Energy Mitigation - Proposed project energy performance goal will be 20 percent more effective than required by California Title 24 Energy Design Standards.

Land Use - The existing site will include golf driving range, golf course, and tennis courts.

Vehicle Trips - The total daily trips at the existing site uses will be approximately 1,147.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	6.66	16.08	61.51	0.08	9.17	0.59	9.75	0.32	0.59	0.90		8,202.98		0.52		8,213.92
Total	**6.66**	**16.08**	**61.51**	**0.08**	**9.17**	**0.59**	**9.75**	**0.32**	**0.59**	**0.90**		**8,202.98**		**0.52**	**0.00**	**8,213.92**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	6.66	16.08	61.51	0.08	9.17	0.59	9.75	0.32	0.59	0.90		8,202.98		0.52		8,213.92
Total	**6.66**	**16.08**	**61.51**	**0.08**	**9.17**	**0.59**	**9.75**	**0.32**	**0.59**	**0.90**		**8,202.98**		**0.52**	**0.00**	**8,213.92**

4.0 Mobile Detail

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	6.66	16.08	61.51	0.08	9.17	0.59	9.75	0.32	0.59	0.90		8,202.98		0.52		8,213.92
Unmitigated	6.66	16.08	61.51	0.08	9.17	0.59	9.75	0.32	0.59	0.90		8,202.98		0.52		8,213.92
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	0.00	0.00	1,978,070	1,978,070
Total	1,147.00	0.00	0.00	1,978,070	1,978,070

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2012 Existing With Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.14	0.21	17.38	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.12	0.08	4,313.16
Energy	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Mobile	12.07	30.15	123.79	0.18	19.52	1.21	20.74	0.67	1.21	1.89		18,454.67		1.04		18,476.55
Total	**29.36**	**31.61**	**141.70**	**0.19**	**19.52**	**1.21**	**21.20**	**0.67**	**1.21**	**2.35**	**0.00**	**24,334.52**		**1.19**	**0.11**	**24,392.71**

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	16.75	0.21	17.36	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.79
Energy	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Mobile	12.07	30.15	123.79	0.18	19.52	1.21	20.74	0.67	1.21	1.89		18,454.67		1.04		18,476.55
Total	**28.94**	**31.39**	**141.59**	**0.19**	**19.52**	**1.21**	**20.91**	**0.67**	**1.21**	**2.06**	**0.00**	**19,802.98**		**1.10**	**0.02**	**19,833.60**

4.0 Mobile Detail

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	12.07	30.15	123.79	0.18	19.52	1.21	20.74	0.67	1.21	1.89		18,454.67		1.04		18,476.55
Unmitigated	12.07	30.15	123.79	0.18	19.52	1.21	20.74	0.67	1.21	1.89		18,454.67		1.04		18,476.55
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
NaturalGas Unmitigated	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Condo/Townhouse High Rise	13543.1	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.15**	**1.25**	**0.53**	**0.01**		**0.00**	**0.10**		**0.00**	**0.10**		**1,593.31**		**0.03**	**0.03**	**1,603.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Condo/Townhouse High Rise	11.205	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.12**	**1.03**	**0.44**	**0.01**		**0.00**	**0.08**		**0.00**	**0.08**		**1,318.24**		**0.03**	**0.02**	**1,326.26**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	16.75	0.21	17.36	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.79
Unmitigated	17.14	0.21	17.38	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.12	0.08	4,313.16
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	0.39	0.00	0.02	0.00		0.00	0.27		0.00	0.27	0.00	4,256.47		0.08	0.08	4,282.37
Landscaping	0.59	0.21	17.36	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.79
Total	**17.14**	**0.21**	**17.38**	**0.00**		**0.00**	**0.36**		**0.00**	**0.36**	**0.00**	**4,286.54**		**0.11**	**0.08**	**4,313.16**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	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
Landscaping	0.59	0.21	17.36	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.79
Total	**16.75**	**0.21**	**17.36**	**0.00**		**0.00**	**0.09**		**0.00**	**0.09**	**0.00**	**30.07**		**0.03**	**0.00**	**30.79**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2012 Existing With Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.14	0.21	17.38	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.12	0.08	4,313.16
Energy	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Mobile	12.86	32.77	121.75	0.17	19.52	1.22	20.75	0.67	1.22	1.90		17,322.31		1.07		17,344.76
Total	**30.15**	**34.23**	**139.66**	**0.18**	**19.52**	**1.22**	**21.21**	**0.67**	**1.22**	**2.36**	**0.00**	**23,202.16**		**1.22**	**0.11**	**23,260.92**

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	16.75	0.21	17.36	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.79
Energy	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Mobile	12.86	32.77	121.75	0.17	19.52	1.22	20.75	0.67	1.22	1.90		17,322.31		1.07		17,344.76
Total	**29.73**	**34.01**	**139.55**	**0.18**	**19.52**	**1.22**	**20.92**	**0.67**	**1.22**	**2.07**	**0.00**	**18,670.62**		**1.13**	**0.02**	**18,701.81**

4.0 Mobile Detail

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	12.86	32.77	121.75	0.17	19.52	1.22	20.75	0.67	1.22	1.90		17,322.31		1.07		17,344.76
Unmitigated	12.86	32.77	121.75	0.17	19.52	1.22	20.75	0.67	1.22	1.90		17,322.31		1.07		17,344.76
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
NaturalGas Unmitigated	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Condo/Townhouse High Rise	13543.1	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.15**	**1.25**	**0.53**	**0.01**		**0.00**	**0.10**		**0.00**	**0.10**		**1,593.31**		**0.03**	**0.03**	**1,603.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Condo/Townhouse High Rise	11.205	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.12**	**1.03**	**0.44**	**0.01**		**0.00**	**0.08**		**0.00**	**0.08**		**1,318.24**		**0.03**	**0.02**	**1,326.26**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	16.75	0.21	17.36	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.79
Unmitigated	17.14	0.21	17.38	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.12	0.08	4,313.16
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	0.39	0.00	0.02	0.00		0.00	0.27		0.00	0.27	0.00	4,256.47		0.08	0.08	4,282.37
Landscaping	0.59	0.21	17.36	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.79
Total	**17.14**	**0.21**	**17.38**	**0.00**		**0.00**	**0.36**		**0.00**	**0.36**	**0.00**	**4,286.54**		**0.11**	**0.08**	**4,313.16**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	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
Landscaping	0.59	0.21	17.36	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.79
Total	**16.75**	**0.21**	**17.36**	**0.00**		**0.00**	**0.09**		**0.00**	**0.09**	**0.00**	**30.07**		**0.03**	**0.00**	**30.79**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future Pre-Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The existing land use includes golf driving range, golf course, and tennis courts.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,147 daily trips.

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation -

Demolition -

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	4.86	11.51	45.73	0.09	9.17	0.53	9.69	0.32	0.53	0.84		8,513.53		0.32		8,520.22
Total	**4.86**	**11.51**	**45.73**	**0.09**	**9.17**	**0.53**	**9.69**	**0.32**	**0.53**	**0.84**		**8,513.53**		**0.32**	**0.00**	**8,520.22**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	4.86	11.51	45.73	0.09	9.17	0.53	9.69	0.32	0.53	0.84		8,513.53		0.32		8,520.22
Total	**4.86**	**11.51**	**45.73**	**0.09**	**9.17**	**0.53**	**9.69**	**0.32**	**0.53**	**0.84**		**8,513.53**		**0.32**	**0.00**	**8,520.22**

4.0 Mobile Detail

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	4.86	11.51	45.73	0.09	9.17	0.53	9.69	0.32	0.53	0.84		8,513.53		0.32		8,520.22
Unmitigated	4.86	11.51	45.73	0.09	9.17	0.53	9.69	0.32	0.53	0.84		8,513.53		0.32		8,520.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	93.76	94.73	2,043,081	2,043,081
Total	1,147.00	93.76	94.73	2,043,081	2,043,081

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future Pre-Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The existing land use includes golf driving range, golf course, and tennis courts.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,147 daily trips.

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation -

Demolition -

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	5.17	12.27	45.74	0.08	9.17	0.53	9.70	0.32	0.53	0.85		8,005.69		0.32		8,012.48
Total	**5.17**	**12.27**	**45.74**	**0.08**	**9.17**	**0.53**	**9.70**	**0.32**	**0.53**	**0.85**		**8,005.69**		**0.32**	**0.00**	**8,012.48**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	5.17	12.27	45.74	0.08	9.17	0.53	9.70	0.32	0.53	0.85		8,005.69		0.32		8,012.48
Total	**5.17**	**12.27**	**45.74**	**0.08**	**9.17**	**0.53**	**9.70**	**0.32**	**0.53**	**0.85**		**8,005.69**		**0.32**	**0.00**	**8,012.48**

4.0 Mobile Detail

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	5.17	12.27	45.74	0.08	9.17	0.53	9.70	0.32	0.53	0.85		8,005.69		0.32		8,012.48
Unmitigated	5.17	12.27	45.74	0.08	9.17	0.53	9.70	0.32	0.53	0.85		8,005.69		0.32		8,012.48
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	93.76	94.73	2,043,081	2,043,081
Total	1,147.00	93.76	94.73	2,043,081	2,043,081

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Golf Course	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

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	0.00					0.00	0.00		0.00	0.00						0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**		**0.00**		**0.00**		**0.00**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.08	0.20	16.95	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.11	0.08	4,313.09
Energy	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Mobile	9.28	22.90	92.19	0.19	19.53	1.10	20.63	0.68	1.10	1.78		17,970.03		0.66		17,983.80
Total	**26.51**	**24.35**	**109.67**	**0.20**	**19.53**	**1.10**	**21.09**	**0.68**	**1.10**	**2.24**	**0.00**	**23,849.88**		**0.80**	**0.11**	**23,899.89**

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	16.69	0.20	16.93	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.72
Energy	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Mobile	9.28	22.90	92.19	0.19	19.53	1.10	20.63	0.68	1.10	1.78		17,970.03		0.66		17,983.80
Total	**26.09**	**24.13**	**109.56**	**0.20**	**19.53**	**1.10**	**20.80**	**0.68**	**1.10**	**1.95**	**0.00**	**19,318.34**		**0.72**	**0.02**	**19,340.78**

4.0 Mobile Detail

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	9.28	22.90	92.19	0.19	19.53	1.10	20.63	0.68	1.10	1.78		17,970.03		0.66		17,983.80
Unmitigated	9.28	22.90	92.19	0.19	19.53	1.10	20.63	0.68	1.10	1.78		17,970.03		0.66		17,983.80
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
NaturalGas Unmitigated	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Condo/Townhouse High Rise	13543.1	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.15**	**1.25**	**0.53**	**0.01**		**0.00**	**0.10**		**0.00**	**0.10**		**1,593.31**		**0.03**	**0.03**	**1,603.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Condo/Townhouse High Rise	11.205	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.12**	**1.03**	**0.44**	**0.01**		**0.00**	**0.08**		**0.00**	**0.08**		**1,318.24**		**0.03**	**0.02**	**1,326.26**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	16.69	0.20	16.93	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.72
Unmitigated	17.08	0.20	16.95	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.11	0.08	4,313.09
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	0.39	0.00	0.02	0.00		0.00	0.27		0.00	0.27	0.00	4,256.47		0.08	0.08	4,282.37
Landscaping	0.53	0.20	16.93	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.72
Total	**17.08**	**0.20**	**16.95**	**0.00**		**0.00**	**0.36**		**0.00**	**0.36**	**0.00**	**4,286.54**		**0.11**	**0.08**	**4,313.09**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	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
Landscaping	0.53	0.20	16.93	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.72
Total	**16.69**	**0.20**	**16.93**	**0.00**		**0.00**	**0.09**		**0.00**	**0.09**	**0.00**	**30.07**		**0.03**	**0.00**	**30.72**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.08	0.20	16.95	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.11	0.08	4,313.09
Energy	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Mobile	9.96	24.58	90.32	0.17	19.53	1.11	20.64	0.68	1.11	1.79		16,896.01		0.66		16,909.94
Total	**27.19**	**26.03**	**107.80**	**0.18**	**19.53**	**1.11**	**21.10**	**0.68**	**1.11**	**2.25**	**0.00**	**22,775.86**		**0.80**	**0.11**	**22,826.03**

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	16.69	0.20	16.93	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.72
Energy	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Mobile	9.96	24.58	90.32	0.17	19.53	1.11	20.64	0.68	1.11	1.79		16,896.01		0.66		16,909.94
Total	**26.77**	**25.81**	**107.69**	**0.18**	**19.53**	**1.11**	**20.81**	**0.68**	**1.11**	**1.96**	**0.00**	**18,244.32**		**0.72**	**0.02**	**18,266.92**

4.0 Mobile Detail

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	9.96	24.58	90.32	0.17	19.53	1.11	20.64	0.68	1.11	1.79		16,896.01		0.66		16,909.94
Unmitigated	9.96	24.58	90.32	0.17	19.53	1.11	20.64	0.68	1.11	1.79		16,896.01		0.66		16,909.94
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
NaturalGas Unmitigated	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	lb/day										lb/day					
Condo/Townhouse High Rise	13543.1	0.15	1.25	0.53	0.01		0.00	0.10		0.00	0.10		1,593.31		0.03	0.03	1,603.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.15**	**1.25**	**0.53**	**0.01**		**0.00**	**0.10**		**0.00**	**0.10**		**1,593.31**		**0.03**	**0.03**	**1,603.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
Condo/Townhouse High Rise	11.205	0.12	1.03	0.44	0.01		0.00	0.08		0.00	0.08		1,318.24		0.03	0.02	1,326.26
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		**0.12**	**1.03**	**0.44**	**0.01**		**0.00**	**0.08**		**0.00**	**0.08**		**1,318.24**		**0.03**	**0.02**	**1,326.26**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	16.69	0.20	16.93	0.00		0.00	0.09		0.00	0.09	0.00	30.07		0.03	0.00	30.72
Unmitigated	17.08	0.20	16.95	0.00		0.00	0.36		0.00	0.36	0.00	4,286.54		0.11	0.08	4,313.09
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	0.39	0.00	0.02	0.00		0.00	0.27		0.00	0.27	0.00	4,256.47		0.08	0.08	4,282.37
Landscaping	0.53	0.20	16.93	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.72
Total	**17.08**	**0.20**	**16.95**	**0.00**		**0.00**	**0.36**		**0.00**	**0.36**	**0.00**	**4,286.54**		**0.11**	**0.08**	**4,313.09**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.85					0.00	0.00		0.00	0.00						0.00
Consumer Products	13.31					0.00	0.00		0.00	0.00						0.00
Hearth	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
Landscaping	0.53	0.20	16.93	0.00		0.00	0.09		0.00	0.09		30.07		0.03		30.72
Total	**16.69**	**0.20**	**16.93**	**0.00**		**0.00**	**0.09**		**0.00**	**0.09**	**0.00**	**30.07**		**0.03**	**0.00**	**30.72**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

Appendix E

CO Hot-Spot Analysis

Weddington Golf and Senior Housing Project

Concentrations of CO for Project

Year 2012 Existing Plus Project					
	1-Hour Bckgrnd Conc.	8-Hour Bckgrnd Conc.	Model RESULTS	Parts Per Million	
Intersection			**1-hour**	**1-hour**	**8-hour**
Whisett Ave and Riverside Dr	3	2.35	0.04	3	2.4
State Standard				20	9.0

JOB: Weddington Golf and Senior Housing RUN: CAL3QHC RUN

DATE : 2/16/12
TIME : 12: 9:51

The MODE flag has been set to C for calculating CO averages.

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 100. CM
U = 1.0 M/S CLAS = 6 (F) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	LENGTH (M)	BRG TYPE (DEG)	VPH	EF (G/MI)	H (M)	W (M)	V/C	QUEUE (VEH)
1. Link_1	524.0	.0	524.0	500.0	500.	360. AG	541.	3.2	.0	20.6		
2. Link_2	524.0	500.0	524.0	1000.0	500.	360. AG	428.	3.2	.0	20.6		
3. Link_3	524.0	452.0	524.0	417.5	34.	180. AG	7.	100.0	.0	20.6	.85	5.7
4. Link_4	476.0	1000.0	476.0	500.0	500.	180. AG	1385.	3.2	.0	20.6		
5. Link_5	476.0	500.0	476.0	.0	500.	180. AG	1149.	3.2	.0	20.6		
6. Link_6	476.0	548.0	476.0	2939.3	2391.	360. AG	7.	100.0	.0	20.6	2.17	398.5
7. Link_7	.0	476.0	500.0	476.0	500.	90. AG	1333.	3.2	.0	20.6		
8. Link_8	500.0	476.0	1000.0	476.0	500.	90. AG	1537.	3.2	.0	20.6		
9. Link_9	452.0	476.0	-1357.3	476.0	1809.	270. AG	6.	100.0	.0	20.6	1.72	301.6
10. Link_10	1000.0	524.0	500.0	524.0	500.	270. AG	987.	3.2	.0	20.6		
11. Link_11	500.0	524.0	.0	524.0	500.	270. AG	1132.	3.2	.0	20.6		
12. Link_12	548.0	524.0	1285.7	524.0	738.	90. AG	6.	100.0	.0	20.6	1.28	123.0

JOB: Weddington Golf and Senior Housing RUN: CAL3QHC RUN

DATE : 2/16/12
TIME : 12: 9:51

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
3. Link_3	60	31	3.0	541	1600	4.81	1	3
6. Link_6	60	31	3.0	1385	1600	4.81	1	3
9. Link_9	60	26	3.0	1333	1600	4.81	1	3
12. Link_12	60	26	3.0	987	1600	4.81	1	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. Rcpt_1	432.0	568.0	1.8
2. Rcpt_2	568.0	568.0	1.8
3. Rcpt_3	432.0	432.0	1.8
4. Rcpt_4	568.0	432.0	1.8

JOB: Weddington Golf and Senior Housing RUN: CAL3QHC RUN

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4
0.	.0	.0	.1	.1
10.	.1	.0	.2	.1
20.	.1	.0	.2	.1
30.	.1	.0	.2	.1
40.	.1	.0	.2	.1
50.	.1	.0	.2	.1
60.	.1	.0	.3	.2
70.	.1	.0	.3	.2
80.	.1	.0	.3	.1
90.	.1	.0	.1	.0
100.	.3	.1	.1	.0
110.	.3	.2	.1	.0
120.	.2	.2	.1	.0
130.	.3	.2	.1	.0
140.	.2	.2	.1	.0
150.	.2	.2	.1	.0
160.	.2	.2	.1	.0
170.	.2	.2	.1	.0
180.	.1	.2	.0	.0
190.	.1	.4	.0	.1
200.	.1	.3	.0	.1
210.	.2	.3	.0	.1
220.	.1	.1	.0	.0
230.	.2	.2	.0	.0
240.	.2	.2	.0	.0
250.	.2	.2	.0	.0
260.	.1	.2	.0	.0
270.	.0	.0	.0	.0
280.	.0	.0	.1	.1
290.	.0	.0	.2	.2
300.	.0	.1	.2	.2
310.	.0	.1	.1	.1
320.	.0	.1	.1	.2
330.	.0	.1	.1	.2
340.	.0	.1	.1	.2
350.	.0	.0	.1	.2
360.	.0	.0	.1	.1
MAX	.3	.4	.3	.2
DEGR.	100	190	60	60

THE HIGHEST CONCENTRATION OF .40 PPM OCCURRED AT RECEPTOR REC2 .

Appendix F

SCAQMD Rule 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.

(10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

(11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

(14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(29) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Dairy farms.

(B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.

(C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(K) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling **(Only applicable to Commercial Poultry Ranches)**	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).

Appendix G

Greenhouse Gas Emissions – CalEEMod Output Files

Weddington Golf and Senior Housing Project-Existing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by approximately 61 percent.

Energy Mitigation - Proposed project energy performance goal will be 20 percent more effective than required by California Title 24 Energy Design Standards.

Land Use - The existing site will include golf driving range, golf course, and tennis courts.

Vehicle Trips - The total daily trips at the existing site uses will be approximately 1,147.

2.0 Emissions Summary

2.1 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	0.00	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
Energy	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
Mobile	0.81	1.97	8.05	0.01	1.07	0.08	1.14	0.04	0.08	0.12	0.00	986.25	986.25	0.06	0.00	987.53
Waste						0.00	0.00		0.00	0.00	3.04	0.00	3.04	0.18	0.00	6.81
Water						0.00	0.00		0.00	0.00	0.00	119.80	119.80	0.00	0.00	120.19
Total	**0.81**	**1.97**	**8.05**	**0.01**	**1.07**	**0.08**	**1.14**	**0.04**	**0.08**	**0.12**	**3.04**	**1,106.05**	**1,109.09**	**0.24**	**0.00**	**1,114.53**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	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
Energy	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
Mobile	0.81	1.97	8.05	0.01	1.07	0.08	1.14	0.04	0.08	0.12	0.00	986.25	986.25	0.06	0.00	987.53
Waste						0.00	0.00		0.00	0.00	3.04	0.00	3.04	0.18	0.00	6.81
Water						0.00	0.00		0.00	0.00	0.00	119.80	119.80	0.00	0.00	120.19
Total	**0.81**	**1.97**	**8.05**	**0.01**	**1.07**	**0.08**	**1.14**	**0.04**	**0.08**	**0.12**	**3.04**	**1,106.05**	**1,109.09**	**0.24**	**0.00**	**1,114.53**

4.0 Mobile Detail

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	0.81	1.97	8.05	0.01	1.07	0.08	1.14	0.04	0.08	0.12	0.00	986.25	986.25	0.06	0.00	987.53
Unmitigated	0.81	1.97	8.05	0.01	1.07	0.08	1.14	0.04	0.08	0.12	0.00	986.25	986.25	0.06	0.00	987.53
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	0.00	0.00	1,978,070	1,978,070
Total	1,147.00	0.00	0.00	1,978,070	1,978,070

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	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
NaturalGas Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Golf Course	0	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
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Golf Course	0	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
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Golf Course	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Golf Course	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

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	0.00	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
Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**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**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					119.80	0.00	0.00	120.19
Unmitigated					119.80	0.00	0.00	120.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Golf Course	0 / 19.1948					119.80	0.00	0.00	120.19
Total						**119.80**	**0.00**	**0.00**	**120.19**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Golf Course	0 / 19.1948					119.80	0.00	0.00	120.19
Total						**119.80**	**0.00**	**0.00**	**120.19**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					3.04	0.18	0.00	6.81
Unmitigated					3.04	0.18	0.00	6.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Golf Course	14.98					3.04	0.18	0.00	6.81
Total						**3.04**	**0.18**	**0.00**	**6.81**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Golf Course	14.98					3.04	0.18	0.00	6.81
Total						**3.04**	**0.18**	**0.00**	**6.81**

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2012 Existing With Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.07	0.04	3.17	0.00		0.00	0.03		0.00	0.03	0.00	149.78	149.78	0.01	0.00	150.78
Energy	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	771.12	771.12	0.02	0.01	774.37
Mobile	1.56	3.99	15.98	0.02	2.27	0.16	2.43	0.09	0.16	0.25	0.00	2,082.62	2,082.62	0.13	0.00	2,085.26
Waste						0.00	0.00		0.00	0.00	18.68	0.00	18.68	1.10	0.00	41.85
Water						0.00	0.00		0.00	0.00	0.00	146.74	146.74	0.40	0.01	158.63
Total	**4.66**	**4.26**	**19.25**	**0.02**	**2.27**	**0.16**	**2.48**	**0.09**	**0.16**	**0.30**	**18.68**	**3,150.26**	**3,168.94**	**1.66**	**0.02**	**3,210.89**

2.1 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.06	0.04	3.17	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.09
Energy	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	713.08	713.08	0.02	0.01	716.02
Mobile	1.56	3.99	15.98	0.02	2.27	0.16	2.43	0.09	0.16	0.25	0.00	2,082.62	2,082.62	0.13	0.00	2,085.26
Waste						0.00	0.00		0.00	0.00	18.68	0.00	18.68	1.10	0.00	41.85
Water						0.00	0.00		0.00	0.00	0.00	146.74	146.74	0.40	0.01	158.63
Total	**4.64**	**4.22**	**19.23**	**0.02**	**2.27**	**0.16**	**2.47**	**0.09**	**0.16**	**0.29**	**18.68**	**2,947.41**	**2,966.09**	**1.66**	**0.02**	**3,006.85**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.56	3.99	15.98	0.02	2.27	0.16	2.43	0.09	0.16	0.25	0.00	2,082.62	2,082.62	0.13	0.00	2,085.26
Unmitigated	1.56	3.99	15.98	0.02	2.27	0.16	2.43	0.09	0.16	0.25	0.00	2,082.62	2,082.62	0.13	0.00	2,085.26
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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						0.00	0.00		0.00	0.00	0.00	494.83	494.83	0.01	0.00	496.44
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	507.33	507.33	0.01	0.00	508.98
NaturalGas Mitigated	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	218.25	218.25	0.00	0.00	219.58
NaturalGas Unmitigated	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	263.79	263.79	0.01	0.00	265.40
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Condo/Townhouse High Rise	4.94324e+006	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	263.79	263.79	0.01	0.00	265.40
Parking Structure	0	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
Total		**0.03**	**0.23**	**0.10**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**263.79**	**263.79**	**0.01**	**0.00**	**265.40**

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	tons/yr										MT/yr					
Condo/Townhouse High Rise	4.08983e+006	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	218.25	218.25	0.00	0.00	219.58
Parking Structure	0	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
Total		**0.02**	**0.19**	**0.08**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**218.25**	**218.25**	**0.00**	**0.00**	**219.58**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Condo/Townhouse High Rise	903076					507.33	0.01	0.00	508.98
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**507.33**	**0.01**	**0.00**	**508.98**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Condo/Townhouse High Rise	880828					494.83	0.01	0.00	496.44
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**494.83**	**0.01**	**0.00**	**496.44**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.06	0.04	3.17	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.09
Unmitigated	3.07	0.04	3.17	0.00		0.00	0.03		0.00	0.03	0.00	149.78	149.78	0.01	0.00	150.78
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.01	0.00	0.00	0.00		0.00	0.01		0.00	0.01	0.00	144.80	144.80	0.00	0.00	145.68
Landscaping	0.11	0.04	3.17	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.09
Total	**3.07**	**0.04**	**3.17**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**149.77**	**149.77**	**0.01**	**0.00**	**150.77**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	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
Landscaping	0.11	0.04	3.17	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.09
Total	**3.06**	**0.04**	**3.17**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**4.97**	**4.97**	**0.01**	**0.00**	**5.09**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					146.74	0.40	0.01	158.63
Unmitigated					146.74	0.40	0.01	158.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Condo/Townhouse High Rise	13.0308 / 8.21507					146.74	0.40	0.01	158.63
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						**146.74**	**0.40**	**0.01**	**158.63**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Condo/Townhouse High Rise	13.0308 / 8.21507					146.74	0.40	0.01	158.63
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						**146.74**	**0.40**	**0.01**	**158.63**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					18.68	1.10	0.00	41.85
Unmitigated					18.68	1.10	0.00	41.85
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Condo/Townhouse High Rise	92					18.68	1.10	0.00	41.85
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**18.68**	**1.10**	**0.00**	**41.85**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Condo/Townhouse High Rise	92					18.68	1.10	0.00	41.85
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**18.68**	**1.10**	**0.00**	**41.85**

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future Pre-Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Golf Course	16.11	Acre

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The existing land use includes golf driving range, golf course, and tennis courts.

Construction Phase - .

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment -

Grading -

Vehicle Trips - The proposed project will approximately generate 1,147 daily trips.

Woodstoves -

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation -

Demolition -

2.0 Emissions Summary

2.1 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	0.00	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
Energy	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
Mobile	0.65	1.56	6.18	0.01	1.10	0.07	1.17	0.04	0.07	0.11	0.00	993.75	993.75	0.04	0.00	994.58
Waste						0.00	0.00		0.00	0.00	3.04	0.00	3.04	0.18	0.00	6.81
Water						0.00	0.00		0.00	0.00	0.00	119.80	119.80	0.00	0.00	120.19
Total	**0.65**	**1.56**	**6.18**	**0.01**	**1.10**	**0.07**	**1.17**	**0.04**	**0.07**	**0.11**	**3.04**	**1,113.55**	**1,116.59**	**0.22**	**0.00**	**1,121.58**

2.1 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.00	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
Energy	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
Mobile	0.65	1.56	6.18	0.01	1.10	0.07	1.17	0.04	0.07	0.11	0.00	993.75	993.75	0.04	0.00	994.58
Waste						0.00	0.00		0.00	0.00	3.04	0.00	3.04	0.18	0.00	6.81
Water						0.00	0.00		0.00	0.00	0.00	119.80	119.80	0.00	0.00	120.19
Total	**0.65**	**1.56**	**6.18**	**0.01**	**1.10**	**0.07**	**1.17**	**0.04**	**0.07**	**0.11**	**3.04**	**1,113.55**	**1,116.59**	**0.22**	**0.00**	**1,121.58**

4.0 Mobile Detail

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	0.65	1.56	6.18	0.01	1.10	0.07	1.17	0.04	0.07	0.11	0.00	993.75	993.75	0.04	0.00	994.58
Unmitigated	0.65	1.56	6.18	0.01	1.10	0.07	1.17	0.04	0.07	0.11	0.00	993.75	993.75	0.04	0.00	994.58
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	1,147.00	93.76	94.73	2,043,081	2,043,081
Total	1,147.00	93.76	94.73	2,043,081	2,043,081

4.3 Trip Type Information

	Miles			Trip %		
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
Golf Course	8.90	13.30	7.40	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	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
NaturalGas Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Golf Course	0	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
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
Golf Course	0	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
Total		**0.00**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Golf Course	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Golf Course	0					0.00	0.00	0.00	0.00
Total						**0.00**	**0.00**	**0.00**	**0.00**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive 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	0.00	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
Unmitigated	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**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**

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	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					119.80	0.00	0.00	120.19
Unmitigated					119.80	0.00	0.00	120.19
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Golf Course	0 / 19.1948					119.80	0.00	0.00	120.19
Total						**119.80**	**0.00**	**0.00**	**120.19**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Golf Course	0 / 19.1948					119.80	0.00	0.00	120.19
Total						**119.80**	**0.00**	**0.00**	**120.19**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					3.04	0.18	0.00	6.81
Unmitigated					3.04	0.18	0.00	6.81
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Golf Course	14.98					3.04	0.18	0.00	6.81
Total						**3.04**	**0.18**	**0.00**	**6.81**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Golf Course	14.98					3.04	0.18	0.00	6.81
Total						**3.04**	**0.18**	**0.00**	**6.81**

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

2.0 Emissions Summary

2.1 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.06	0.04	3.09	0.00		0.00	0.03		0.00	0.03	0.00	149.78	149.78	0.01	0.00	150.77
Energy	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	771.12	771.12	0.02	0.01	774.37
Mobile	1.21	3.01	11.87	0.02	2.27	0.14	2.42	0.09	0.14	0.23	0.00	2,030.41	2,030.41	0.08	0.00	2,032.05
Waste						0.00	0.00		0.00	0.00	18.68	0.00	18.68	1.10	0.00	41.85
Water						0.00	0.00		0.00	0.00	0.00	146.74	146.74	0.40	0.01	158.63
Total	**4.30**	**3.28**	**15.06**	**0.02**	**2.27**	**0.14**	**2.47**	**0.09**	**0.14**	**0.28**	**18.68**	**3,098.05**	**3,116.73**	**1.61**	**0.02**	**3,157.67**

2.1 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.05	0.04	3.09	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.08
Energy	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	713.08	713.08	0.02	0.01	716.02
Mobile	1.21	3.01	11.87	0.02	2.27	0.14	2.42	0.09	0.14	0.23	0.00	2,030.41	2,030.41	0.08	0.00	2,032.05
Waste						0.00	0.00		0.00	0.00	18.68	0.00	18.68	1.10	0.00	41.85
Water						0.00	0.00		0.00	0.00	0.00	146.74	146.74	0.40	0.01	158.63
Total	**4.28**	**3.24**	**15.04**	**0.02**	**2.27**	**0.14**	**2.46**	**0.09**	**0.14**	**0.27**	**18.68**	**2,895.20**	**2,913.88**	**1.61**	**0.02**	**2,953.63**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.21	3.01	11.87	0.02	2.27	0.14	2.42	0.09	0.14	0.23	0.00	2,030.41	2,030.41	0.08	0.00	2,032.05
Unmitigated	1.21	3.01	11.87	0.02	2.27	0.14	2.42	0.09	0.14	0.23	0.00	2,030.41	2,030.41	0.08	0.00	2,032.05
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	1,771.00	0.00	0.00	4,213,177	4,213,177
Parking Structure	0.00	0.00	0.00		
Total	1,771.00	0.00	0.00	4,213,177	4,213,177

4.3 Trip Type Information

	Miles			Trip %		
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
Condo/Townhouse High Rise	12.70	7.00	9.50	40.20	19.20	40.60
Parking Structure	8.90	13.30	7.40	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive 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						0.00	0.00		0.00	0.00	0.00	494.83	494.83	0.01	0.00	496.44
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	507.33	507.33	0.01	0.00	508.98
NaturalGas Mitigated	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	218.25	218.25	0.00	0.00	219.58
NaturalGas Unmitigated	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	263.79	263.79	0.01	0.00	265.40
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	tons/yr										MT/yr					
Condo/Townhouse High Rise	4.94324e+006	0.03	0.23	0.10	0.00		0.00	0.02		0.00	0.02	0.00	263.79	263.79	0.01	0.00	265.40
Parking Structure	0	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
Total		**0.03**	**0.23**	**0.10**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**263.79**	**263.79**	**0.01**	**0.00**	**265.40**

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	tons/yr										MT/yr					
Condo/Townhouse High Rise	4.08983e+006	0.02	0.19	0.08	0.00		0.00	0.02		0.00	0.02	0.00	218.25	218.25	0.00	0.00	219.58
Parking Structure	0	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
Total		**0.02**	**0.19**	**0.08**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**218.25**	**218.25**	**0.00**	**0.00**	**219.58**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Condo/Townhouse High Rise	903076					507.33	0.01	0.00	508.98
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**507.33**	**0.01**	**0.00**	**508.98**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
Condo/Townhouse High Rise	880828					494.83	0.01	0.00	496.44
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**494.83**	**0.01**	**0.00**	**496.44**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.05	0.04	3.09	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.08
Unmitigated	3.06	0.04	3.09	0.00		0.00	0.03		0.00	0.03	0.00	149.78	149.78	0.01	0.00	150.77
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

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	0.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.01	0.00	0.00	0.00		0.00	0.01		0.00	0.01	0.00	144.80	144.80	0.00	0.00	145.68
Landscaping	0.10	0.04	3.09	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.08
Total	**3.06**	**0.04**	**3.09**	**0.00**		**0.00**	**0.03**		**0.00**	**0.03**	**0.00**	**149.77**	**149.77**	**0.01**	**0.00**	**150.76**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.52					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	2.43					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	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
Landscaping	0.10	0.04	3.09	0.00		0.00	0.02		0.00	0.02	0.00	4.97	4.97	0.01	0.00	5.08
Total	**3.05**	**0.04**	**3.09**	**0.00**		**0.00**	**0.02**		**0.00**	**0.02**	**0.00**	**4.97**	**4.97**	**0.01**	**0.00**	**5.08**

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					146.74	0.40	0.01	158.63
Unmitigated					146.74	0.40	0.01	158.63
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Condo/Townhouse High Rise	13.0308 / 8.21507					146.74	0.40	0.01	158.63
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						**146.74**	**0.40**	**0.01**	**158.63**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
Condo/Townhouse High Rise	13.0308 / 8.21507					146.74	0.40	0.01	158.63
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						**146.74**	**0.40**	**0.01**	**158.63**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					18.68	1.10	0.00	41.85
Unmitigated					18.68	1.10	0.00	41.85
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Condo/Townhouse High Rise	92					18.68	1.10	0.00	41.85
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**18.68**	**1.10**	**0.00**	**41.85**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
Condo/Townhouse High Rise	92					18.68	1.10	0.00	41.85
Parking Structure	0					0.00	0.00	0.00	0.00
Total						**18.68**	**1.10**	**0.00**	**41.85**

9.0 Vegetation

Weddington Golf and Senior Housing Project - Year 2016 Future With Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	613	Space
Condo/Townhouse High Rise	200	Dwelling Unit

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Utility Company**	Los Angeles Department of Water & Power
Climate Zone	12	**Precipitation Freq (Days)**	33		

1.3 User Entered Comments

Project Characteristics -

Land Use - The proposed senior housing will consist of 4-story buildings with 613 subterranean parking spaces underneath the senior housing condominiums. Lot-acreage and square-footage are provided.

Construction Phase - .

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - .

Off-road Equipment - .

Off-road Equipment - .

Grading -

Vehicle Trips - The proposed project will approximately generate 1,771 daily trips.

Woodstoves - All units and common areas will have natural gas fireplaces.

Construction Off-road Equipment Mitigation - Compliance with Rule 403 would reduce regional PM emissions associated with construction activities by 61 percent.

Area Mitigation -

Energy Mitigation - Proposed project performance goal will be 20% more effective than required by California Title 24 Energy Design Standards.

Trips and VMT - Assuming a truck can haul 16 tons of material, it would take approximately 7,688 trips to haul 82,000 cubic yards of earth materials.

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					
2014	1.03	8.26	5.40	0.01	15.25	0.39	15.64	0.60	0.39	0.99	0.00	1,020.48	1,020.48	0.08	0.00	1,022.09
2015	1.09	4.65	5.49	0.01	0.54	0.26	0.79	0.03	0.26	0.28	0.00	991.32	991.32	0.06	0.00	992.61
2016	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.85	0.00	0.00	0.85
Total	**2.16**	**12.91**	**10.90**	**0.02**	**15.79**	**0.65**	**16.43**	**0.63**	**0.65**	**1.27**	**0.00**	**2,012.65**	**2,012.65**	**0.14**	**0.00**	**2,015.55**

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					
2014	1.03	8.26	5.40	0.01	14.60	0.39	14.99	0.24	0.39	0.63	0.00	1,020.48	1,020.48	0.08	0.00	1,022.09
2015	1.09	4.65	5.49	0.01	0.54	0.26	0.79	0.03	0.26	0.28	0.00	991.32	991.32	0.06	0.00	992.61
2016	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.85	0.00	0.00	0.85
Total	**2.16**	**12.91**	**10.90**	**0.02**	**15.14**	**0.65**	**15.78**	**0.27**	**0.65**	**0.91**	**0.00**	**2,012.65**	**2,012.65**	**0.14**	**0.00**	**2,015.55**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2014

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					0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.25	0.75	0.00		0.06	0.06		0.06	0.06	0.00	125.98	125.98	0.01	0.00	126.25
Total	**0.16**	**1.25**	**0.75**	**0.00**	**0.01**	**0.06**	**0.07**	**0.00**	**0.06**	**0.06**	**0.00**	**125.98**	**125.98**	**0.01**	**0.00**	**126.25**

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	0.00	0.01	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.91
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97	2.97	0.00	0.00	2.97
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.88**

3.2 Demolition - 2014

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					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.16	1.25	0.75	0.00		0.06	0.06		0.06	0.06	0.00	125.98	125.98	0.01	0.00	126.25
Total	**0.16**	**1.25**	**0.75**	**0.00**	**0.00**	**0.06**	**0.06**	**0.00**	**0.06**	**0.06**	**0.00**	**125.98**	**125.98**	**0.01**	**0.00**	**126.25**

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	0.00	0.01	0.01	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	1.91	1.91	0.00	0.00	1.91
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97	2.97	0.00	0.00	2.97
Total	**0.00**	**0.01**	**0.03**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**4.88**	**4.88**	**0.00**	**0.00**	**4.88**

3.3 Site Preparation - 2014

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					1.06	0.00	1.06	0.58	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.52	4.19	2.36	0.00		0.20	0.20		0.20	0.20	0.00	403.55	403.55	0.04	0.00	404.44
Total	**0.52**	**4.19**	**2.36**	**0.00**	**1.06**	**0.20**	**1.26**	**0.58**	**0.20**	**0.78**	**0.00**	**403.55**	**403.55**	**0.04**	**0.00**	**404.44**

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	0.20	1.88	1.14	0.00	14.04	0.08	14.13	0.01	0.08	0.09	0.00	293.59	293.59	0.01	0.00	293.77
Vendor	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
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.35	14.35	0.00	0.00	14.37
Total	**0.21**	**1.89**	**1.23**	**0.00**	**14.06**	**0.08**	**14.15**	**0.01**	**0.08**	**0.09**	**0.00**	**307.94**	**307.94**	**0.01**	**0.00**	**308.14**

3.3 Site Preparation - 2014

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					0.42	0.00	0.42	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.52	4.19	2.36	0.00		0.20	0.20		0.20	0.20	0.00	403.55	403.55	0.04	0.00	404.44
Total	**0.52**	**4.19**	**2.36**	**0.00**	**0.42**	**0.20**	**0.62**	**0.23**	**0.20**	**0.43**	**0.00**	**403.55**	**403.55**	**0.04**	**0.00**	**404.44**

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	0.20	1.88	1.14	0.00	14.04	0.08	14.13	0.01	0.08	0.09	0.00	293.59	293.59	0.01	0.00	293.77
Vendor	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
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.35	14.35	0.00	0.00	14.37
Total	**0.21**	**1.89**	**1.23**	**0.00**	**14.06**	**0.08**	**14.15**	**0.01**	**0.08**	**0.09**	**0.00**	**307.94**	**307.94**	**0.01**	**0.00**	**308.14**

3.4 Building Construction - 2014

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	0.08	0.63	0.44	0.00		0.04	0.04		0.04	0.04	0.00	73.01	73.01	0.01	0.00	73.15
Total	**0.08**	**0.63**	**0.44**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**73.01**	**73.01**	**0.01**	**0.00**	**73.15**

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	0.00	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
Vendor	0.02	0.24	0.17	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	40.03	40.03	0.00	0.00	40.05
Worker	0.04	0.04	0.41	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.09	65.09	0.00	0.00	65.17
Total	**0.06**	**0.28**	**0.58**	**0.00**	**0.09**	**0.01**	**0.11**	**0.00**	**0.01**	**0.02**	**0.00**	**105.12**	**105.12**	**0.00**	**0.00**	**105.22**

3.4 Building Construction - 2014

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	0.08	0.63	0.44	0.00		0.04	0.04		0.04	0.04	0.00	73.01	73.01	0.01	0.00	73.15
Total	**0.08**	**0.63**	**0.44**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**73.01**	**73.01**	**0.01**	**0.00**	**73.15**

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	0.00	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
Vendor	0.02	0.24	0.17	0.00	0.01	0.01	0.02	0.00	0.01	0.01	0.00	40.03	40.03	0.00	0.00	40.05
Worker	0.04	0.04	0.41	0.00	0.08	0.00	0.09	0.00	0.00	0.01	0.00	65.09	65.09	0.00	0.00	65.17
Total	**0.06**	**0.28**	**0.58**	**0.00**	**0.09**	**0.01**	**0.11**	**0.00**	**0.01**	**0.02**	**0.00**	**105.12**	**105.12**	**0.00**	**0.00**	**105.22**

3.4 Building Construction - 2015

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	0.43	3.18	2.44	0.00		0.19	0.19		0.19	0.19	0.00	405.02	405.02	0.04	0.00	405.76
Total	**0.43**	**3.18**	**2.44**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**405.02**	**405.02**	**0.04**	**0.00**	**405.76**

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	0.00	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
Vendor	0.12	1.23	0.87	0.00	0.07	0.04	0.12	0.01	0.04	0.05	0.00	222.59	222.59	0.01	0.00	222.71
Worker	0.19	0.19	2.11	0.00	0.46	0.02	0.47	0.02	0.02	0.04	0.00	353.81	353.81	0.02	0.00	354.22
Total	**0.31**	**1.42**	**2.98**	**0.00**	**0.53**	**0.06**	**0.59**	**0.03**	**0.06**	**0.09**	**0.00**	**576.40**	**576.40**	**0.03**	**0.00**	**576.93**

3.4 Building Construction - 2015

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	0.43	3.18	2.44	0.00		0.19	0.19		0.19	0.19	0.00	405.02	405.02	0.04	0.00	405.76
Total	**0.43**	**3.18**	**2.44**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**405.02**	**405.02**	**0.04**	**0.00**	**405.76**

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	0.00	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
Vendor	0.12	1.23	0.87	0.00	0.07	0.04	0.12	0.01	0.04	0.05	0.00	222.59	222.59	0.01	0.00	222.71
Worker	0.19	0.19	2.11	0.00	0.46	0.02	0.47	0.02	0.02	0.04	0.00	353.81	353.81	0.02	0.00	354.22
Total	**0.31**	**1.42**	**2.98**	**0.00**	**0.53**	**0.06**	**0.59**	**0.03**	**0.06**	**0.09**	**0.00**	**576.40**	**576.40**	**0.03**	**0.00**	**576.93**

3.5 Paving - 2015

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	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	1.97	1.97	0.00	0.00	1.98
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.97**	**1.97**	**0.00**	**0.00**	**1.98**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.5 Paving - 2015

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	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	1.97	1.97	0.00	0.00	1.98
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.00**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**1.97**	**1.97**	**0.00**	**0.00**	**1.98**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.00	0.16
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.16**	**0.16**	**0.00**	**0.00**	**0.16**

3.6 Architectural Coating - 2015

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	0.33					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.30	2.30	0.00	0.00	2.30
Total	**0.33**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.30**	**2.30**	**0.00**	**0.00**	**2.30**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.47	5.47	0.00	0.00	5.47
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.47**	**5.47**	**0.00**	**0.00**	**5.47**

3.6 Architectural Coating - 2015

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	0.33					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00	0.00	2.30	2.30	0.00	0.00	2.30
Total	**0.33**	**0.02**	**0.02**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**2.30**	**2.30**	**0.00**	**0.00**	**2.30**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	5.47	5.47	0.00	0.00	5.47
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**5.47**	**5.47**	**0.00**	**0.00**	**5.47**

3.6 Architectural Coating - 2016

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	0.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26
Total	**0.04**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.26**	**0.26**	**0.00**	**0.00**	**0.26**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.00	0.00	0.60
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.60**	**0.60**	**0.00**	**0.00**	**0.60**

3.6 Architectural Coating - 2016

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	0.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.26	0.26	0.00	0.00	0.26
Total	**0.04**	**0.00**	**0.00**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**0.26**	**0.26**	**0.00**	**0.00**	**0.26**

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	0.00	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
Vendor	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
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.60	0.00	0.00	0.60
Total	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.60**	**0.60**	**0.00**	**0.00**	**0.60**

Noise Appendix

A. Construction Noise Calculations
B. Mobile Noise Calculations
C. TNM Look-Up Output Files

Appendix A

Construction Noise Calculations

Weddington Golf and Senior Housing Project - Construction Noise - Mitigated

Reference Noise Distance	**50**
Reference Noise Level	**89**

Sensitive Receptor	Distance (feet)	Attenuation Factors	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, Leq)	New Ambient (dBA, Leq)	Increase
Christian Science Church – 4032 Whitsett Avenue	180	3	**74.9**	**68.6**	**75.8**	**7.2**
Single-Family Residence – 4118 Wilkinson Avenue	415	15	**55.6**	**57.5**	**59.7**	**2.2**
Single-Family Residence – 4202 Beeman Avenue	595	10.5	**66.5**	**65.5**	**69.0**	**3.5**
Single- and Multi-Family Residence – 12464 Sunswept Drive	753	10.5	**54.9**	**66.5**	**66.8**	**0.3**
Single-Family Residences located to the northwest	995	15	**54.8**	**55.1**	**58.0**	**2.9**

A 3 dBA reduction was given for mufflers.

Weddington Golf and Senior Housing Project - Construction Noise - Unmitigated

Reference Noise Distance	**50**
Reference Noise Level	**89**

Sensitive Receptor	Distance (feet)	Attenuation Factors	Maximum Construction Noise Level (dBA)	Existing Ambient (dBA, Leq)	New Ambient (dBA, Leq)	Increase
Christian Science Church – 4032 Whitsett Avenue	180	0	**77.9**	**68.6**	**78.4**	**9.8**
Single-Family Residence – 4118 Wilkinson Avenue	415	12	**58.6**	**57.5**	**61.1**	**3.6**
Single-Family Residence – 4202 Beeman Avenue	595	7.5	**69.5**	**65.5**	**71.0**	**5.5**
Single- and Multi-Family Residence – 12464 Sunswept Drive	753	7.5	**66.4**	**66.5**	**69.5**	**3.0**
Single-Family Residences located to the northwest	995	12	**51.0**	**55.1**	**56.5**	**1.4**

Weddington Golf and Senior Housing Project -Pile Driving Noise - Unmitigated

Reference Noise Distance	**50**					
Reference Noise Level	**101**					
Sensitive Receptor	**Distance (feet)**	**Attenuation Factors**	**Maximum Construction Noise Level (dBA)**	**Existing Ambient (dBA, Leq)**	**New Ambient (dBA, Leq)**	**Increase**
Christian Science Church – 4032 Whitsett Avenue	180	0	**89.9**	**68.6**	**89.9**	**21.3**
Single-Family Residence – 4118 Wilkinson Avenue	415	12	**70.6**	**57.5**	**70.8**	**13.3**
Single-Family Residence – 4202 Beeman Avenue	595	7.5	**81.5**	**65.5**	**81.6**	**16.1**
Single- and Multi-Family Residence – 12464 Sunswept Drive	753	12	**65.4**	**66.5**	**69.0**	**2.5**
Single-Family Residences located to the northwest	995	7.5	**74.3**	**55.1**	**74.3**	**19.2**

Weddington Golf and Senior Housing Project -Auger Drilling Noise - Unmitigated

Reference Noise Distance	**50**					
Reference Noise Level	**77**					
Sensitive Receptor	**Distance (feet)**	**Attenuation Factors**	**Maximum Construction Noise Level (dBA)**	**Existing Ambient (dBA, Leq)**	**New Ambient (dBA, Leq)**	**Increase**
Christian Science Church – 4032 Whitsett Avenue	180	0	**65.9**	**68.6**	**70.5**	**1.9**
Single-Family Residence – 4118 Wilkinson Avenue	415	12	**46.6**	**68.6**	**68.6**	**0.0**
Single-Family Residence – 4202 Beeman Avenue	595	7.5	**57.5**	**57.5**	**60.5**	**3.0**
Single- and Multi-Family Residence – 12464 Sunswept Drive	753	12	**41.4**	**66.5**	**66.5**	**0.0**
Single-Family Residences located to the northwest	995	7.5	**50.3**	**55.1**	**56.3**	**1.2**

Appendix B

Mobile Noise Calculations

Mobile Noise

Year 2012 Existing No Project

ROAD SEGMENT	from:	to:	TOT. # VEH.	VEHICLE TYPE % Auto %	Auto	MT %	MT	HT %	HT	Speed	dBA (from TNM)
Whitsett Ave	Riverside Dr	Whitsett Ave	1457	91	1325	6	87	3	44	35	69.9
Whitsett Ave	Ventura Blvd	Whitsett Ave	1269	91	1154	6	76	3	38	35	69.3
Moorpark St	Coldwater Cyn Ave	Moorpark St	1556	91	1416	6	93	3	47	35	70.2
Moorpark St	Laurel Cyn Blvd	Moorpark St	1479	91	1345	6	89	3	44	35	70
				91	0	6	0	3	0		

Year 2012 Existing Plus Project

ROAD SEGMENT	from:	to:	TOT. # VEH.	VEHICLE TYPE % Auto %	Auto	MT %	MT	HT %	HT	Speed	dBA (from TNM)	Increase from Existing
Whitsett Ave	Riverside Dr	Whitsett Ave	1470	91	1337	6	88	3	44	35	70	0.1
Whitsett Ave	Ventura Blvd	Whitsett Ave	1286	91	1170	6	77	3	39	35	69.4	0.1
Moorpark St	Coldwater Cyn Ave	Moorpark St	1561	91	1421	6	94	3	47	35	70.2	0
Moorpark St	Laurel Cyn Blvd	Moorpark St	1484	91	1350	6	89	3	45	35	70	0
				91	0	6	0	3	0			

Year 2016 Future No Project

ROAD SEGMENT	from:	to:	TOT. # VEH.	VEHICLE TYPE % Auto %	Auto	MT %	MT	HT %	HT	Speed	dBA (from TNM)
Whitsett Ave	Riverside Dr	Whitsett Ave	1621	91	1475	6	97	3	49	35	70.4
Whitsett Ave	Ventura Blvd	Whitsett Ave	1420	91	1292	6	85	3	43	35	69.8
Moorpark St	Coldwater Cyn Ave	Moorpark St	1721	91	1566	6	103	3	52	35	70.7
Moorpark St	Laurel Cyn Blvd	Moorpark St	1643	91	1495	6	99	3	49	35	70.4
				91	0	6	0	3	0		

Year 2016 Future Plus Project

ROAD SEGMENT	from:	to:	TOT. # VEH.	VEHICLE TYPE % Auto %	Auto	MT %	MT	HT %	HT	Speed	dBA (from TNM)	Increase from Base	Increase from Existing
Whitsett Ave	Riverside Dr	Whitsett Ave	1634	91	1487	6	98	3	49	35	70.4	0	0.5
Whitsett Ave	Ventura Blvd	Whitsett Ave	1437	91	1307	6	86	3	43	35	69.9	0.1	0.6
Moorpark St	Coldwater Cyn Ave	Moorpark St	1727	91	1571	6	104	3	52	35	70.7	0	0.5
Moorpark St	Laurel Cyn Blvd	Moorpark St	1649	91	1500	6	99	3	49	35	70.5	0.1	0.5
				91	0	6	0	3	0				

Appendix C

TNM Look-Up Output Files

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing No Project_PM Peak Hour Whitsett Avenue/Riverside Drive

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1325.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	87.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	44.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.9

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing No Project_PM Peak Hour Moorpark Street/Laurel Canyon Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1345.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	89.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	44.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.0

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing No Project_PM Peak Hour Moorpark Street/Coldwater Canyon Avenue

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1416.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	93.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	47.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.2

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing No Project_PM Peak Hour Whitsett Avenue/Ventura Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1154.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	76.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	38.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.3

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing Plus Project_PM Peak Hour Whitsett Avenue/Riverside Drive

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1337.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	88.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	44.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.0

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing Plus Project_PM Peak Hour Moorpark Street/Laurel Canyon Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1350.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	89.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	45.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.0

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing Plus Project_PM Peak Hour Moorpark Street/Coldwater Canyon Avenue

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1421.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	94.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	47.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.2

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2012 Existing Plus Project_PM Peak Hour Whitsett Avenue/Ventura Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1170.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	77.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	39.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.4

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future No Project_PM Peak Hour Whitsett Avenue/Riverside Drive

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1475.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	97.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	49.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.4

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future No Project_PM Peak Hour Moorpark Street/Laural Canyon Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1495.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	99.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	49.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.4

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future No Project_PM Peak Hour Moorpark Street/Coldwater Canyon Avenue

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1566.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	103.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	52.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.7

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future No Project_PM Peak Hour Whitsett Avenue/Ventura Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1292.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	85.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	43.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.8

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future Plus Project_PM Peak Hour Whitsett Avenue/Riverside Drive

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1487.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	98.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	49.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.4

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future Plus Project_PM Peak Hour Moorpark Street/Laurel Canyon Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1500.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	99.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	49.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.5

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future Plus Project_PM Peak Hour Moorpark Street/Coldwater Canyon Avenue

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1571.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	104.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	52.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	70.7

* * * * CASE INFORMATION * * * *

* * * * Results calculated with TNM Version 2.5 * * * *

Weddington Golf and Senior Housing Project - Year 2016 Future Plus Project_PM Peak Hour Whitsett Avenue/Ventura Boulevard

* * * * TRAFFIC VOLUME/SPEED INFORMATION * * * *

Automobile volume (v/h):	1307.0
Average automobile speed (mph):	35.0
Medium truck volume (v/h):	86.0
Average medium truck speed (mph):	35.0
Heavy truck volume (v/h):	43.0
Average heavy truck speed (mph):	35.0
Bus volume (v/h):	0.0
Average bus speed (mph):	0.0
Motorcycle volume (v/h):	0.0
Average Motorcycle speed (mph):	0.0

* * * * TERRAIN SURFACE INFORMATION * * * *

Terrain surface: hard

* * * * RECEIVER INFORMATION * * * *

DESCRIPTION OF RECEIVER # 1

Distance from center of 12-ft wide, single lane roadway (ft):	32.8
A-weighted Hourly Equivalent Sound Level without Barrier (dBA):	69.9