

# **AIR QUALITY ANALYSIS**

## **5600 FRANKLIN AVENUE PROJECT 5600-5616 W. FRANKLIN AVENUE AND 1857-1859 N. GARFIELD PLACE, LOS ANGELES, CA 90028**

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## 1. INTRODUCTION

The following analysis examines the degree to which the Proposed Project may result in significant environmental impacts with respect to air quality. The Project Site encompasses one parcel on an approximate 0.44-acre site, located on the southwest corner of Franklin Avenue and Garfield Place in the Hollywood community of the City of Los Angeles (“Project Site”). The Project Site addresses include 5600 to 5616 W. Franklin Avenue and 1857 to 1859 N. Garfield Place, Los Angeles, CA 90028. Figure 1, on page 2, shows an aerial view of the Project Site and surrounding land uses. The Proposed Project is currently developed with an existing auto service center and multi-family residential building. The project would include the demolition of the existing uses and the construction and operation of a 44,285 square-foot multi-family residential project with 41 dwelling units (“Proposed Project”). The Proposed Project would include five-stories above grade with one level of subterranean parking. Parking for the Proposed Project would include 41 parking stalls with driveway access from Garfield Place.

Both short-term construction emissions occurring from activities, such as demolition, site grading, and long-term effects related to the ongoing operation of the Proposed Project are quantified. The analysis contained herein focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. As used in this study, the term “emissions” refers to the actual quantity of pollutant measured in pounds per day (ppd). The term “concentrations” refers to the amount of pollutant material per volumetric unit of air as measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

This Air Quality Analysis also addresses the potential for the Proposed Project to conflict with or obstruct implementation of the applicable air quality plan, to violate an adopted air quality standard or contribute substantially to an existing or projected air quality violation, to result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is designated to be in non-attainment, to expose sensitive receptors to substantial pollutant concentrations, or to create objectionable odors affecting a substantial number of people. Documents and references used in the preparation of this analysis include, but are not limited to, the air quality modeling worksheets presented in Appendix A (Air Quality Modeling Worksheets), the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook (1993), the 2022 Air Quality Management Plan (AQMP), as amended, as well as federal and state regulations and guidelines.

The Project Site is located within the South Coast Air Basin (Basin). This Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Basin is primarily influenced by a wide range of emissions sources – such as dense population centers, heavy vehicular traffic, and industry – and meteorology.

**[INSERT Figure 1, Project Location Map]**

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## A. Air Pollutants

Air pollutant emissions within the Basin are generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at an identified location and are usually associated with manufacturing and industry. Examples of point sources include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and produce many small emissions. Examples of area sources include residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and consumer products such as lighter fluid and hair spray. Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, racecars, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when fine dust particles are pulled off the ground surface and suspended in the air during high winds.

The federal and state governments have authority under federal and state Clean Air Acts to regulate emissions of airborne pollutants and have established ambient air quality standards for outdoor concentrations of various pollutants in order to establish a margin of safety and to protect public health and welfare.<sup>1</sup> These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, that have been adopted for them. The national and state standards have been set at levels considered safe to protect public health, including the health of “sensitive” populations most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases, with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.<sup>2</sup>

To derive the federal standards, the United States Environmental Protection Agency (U.S. EPA) reviews data from integrated science assessments and risk/exposure assessments to determine the ambient pollutant concentrations at which human health impacts occur, then reduces these concentrations to establish a margin of safety that is protective of those segments of the public most susceptible to respiratory distress. As a result, human health impacts caused by the air pollutants discussed below may affect people when the emission levels are at or above the concentrations established by the National Ambient Air Quality Standards (NAAQS). Accordingly, ambient air pollutant concentrations below the NAAQS are considered to be protective of human health.<sup>3</sup> The NAAQS and the underlying science that forms the basis of the NAAQS are reviewed every five years to determine whether updates are necessary to continue protecting public health with an adequate margin of safety.<sup>4</sup>

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<sup>1</sup> U.S. EPA, *Clean Air Act Title I – Section 109, U.S. Code 2013 Section 7409(b), Natural Primary and Secondary Ambient Air Quality Standards*, website: <https://www.govinfo.gov/content/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchap1-partA-sec7409.htm>, accessed March 2022.

<sup>2</sup> *South Coast Air Quality Management Plan, Final 2016 AQMP, Chapter 1 – Introduction, pg 1-6*, website: <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/chapter1.pdf?sfvrsn=4>, accessed March 2022.

<sup>3</sup> U.S. EPA, *Process of Reviewing the National Ambient Air Quality Standards*, website: <https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards>, accessed March 2022.

<sup>4</sup> U.S. EPA 2015.

The State of California has established health-based ambient air quality standards for airborne pollutants, some of which are more stringent than the federal standards.<sup>5</sup>

The criteria air pollutants that are most relevant to current air quality planning and regulation in the Basin include ozone ( $O_3$ ), carbon monoxide (CO), nitrogen dioxide ( $NO_2$ ), respirable particulate matter ( $PM_{10}$ ), fine particulate matter ( $PM_{2.5}$ ), sulfur dioxide ( $SO_2$ ), and lead (Pb). In addition, toxic air contaminants (TACs) are of concern in the Basin. The characteristics of each of these pollutants are briefly described below.

- $O_3$  is a highly reactive and unstable gas that is formed when reactive organic gases (ROGs) and nitrogen oxides ( $NO_x$ ), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight.  $O_3$  concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike  $O_3$ , motor vehicles operating at slow speeds are the primary source of CO in the Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- $PM_{10}$  and  $PM_{2.5}$  consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter, respectively. Some sources of particulate matter, like pollen and windstorms, are naturally occurring. However, in populated areas, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities.
- $NO_2$  is a nitrogen oxide compound that is produced by the combustion of fossil fuels, such as in internal combustion engines (both gasoline and diesel powered), as well as point sources, especially power plants. Of the seven types of nitrogen oxide ( $NO_x$ ) compounds,  $NO_2$  is the most abundant in the atmosphere. As ambient concentrations of  $NO_2$  are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of  $NO_2$  than those indicated by regional monitors.
- $SO_2$  is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When  $SO_2$  oxidizes in the atmosphere, it forms sulfates ( $SO_4$ ). Collectively, these pollutants are referred to as sulfur oxides ( $SO_x$ ).
- Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne Pb in the Basin. The use of leaded gasoline is no longer permitted for on road motor vehicles, so the majority of such combustion emissions are associated with off-road vehicles,

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<sup>5</sup> California Air Resources Board, California Ambient Air Quality Standards, website: <https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards>, accessed March 2022.

such as racecars. However, because leaded gasoline was emitted in large amounts from vehicles when leaded gasoline was used for on-road motor vehicles, Pb is present in many urban soils and can be re-suspended in the air. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and the use of secondary lead smelters.

- *TACs* are air pollutants which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health (Health and Safety Code (HSC) Section 39655a). *TACs* refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short duration) adverse effects on human health. *TACs* include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. *TACs* are different than “criteria” pollutants in that ambient air quality standards have not been established for them, largely because there are hundreds of air toxics and their effects on health tend to be felt on a local scale rather than on a regional basis.

## **B. Health Effects of Criteria Pollutants**

The health effects of the criteria pollutants (i.e., O<sub>3</sub>, CO, PM<sub>10</sub> and PM<sub>2.5</sub>, NO<sub>2</sub>, SO<sub>2</sub>, and Pb) and *TACs* are described below.<sup>6</sup> In addition, a list of the harmful effects of each criteria pollutant is provided in Table 1, Summary of Health Effects of Criteria Pollutants.

### *Ozone (O<sub>3</sub>)*

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O<sub>3</sub> effects.

Short-term exposures (lasting for a few hours) to O<sub>3</sub> 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. Elevated O<sub>3</sub> levels are also associated with increased school absences. In recent years, a correlation between elevated ambient O<sub>3</sub> levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high O<sub>3</sub> communities.

O<sub>3</sub> exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants that include O<sub>3</sub> may be more toxic than exposure to O<sub>3</sub> alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

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<sup>6</sup> *The descriptions of the health effects of the criteria pollutants are taken from Appendix C (Health Effects of Ambient Air Pollutants) of SCAQMD’s “Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning,” website: <http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/appendix-c.pdf?sfvrsn=2>, accessed March 2022.*

**Table 1**  
**Summary of Health Effects of Criteria Pollutants**

<b>Pollutants</b>	<b>Primary Health and Welfare Effects</b>
<b>Ozone (O<sub>3</sub>)</b>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases</li> <li>• Reduced lung function</li> <li>• Increased cough and chest discomfort</li> </ul>
<b>Carbon Monoxide (CO)</b>	<ul style="list-style-type: none"> <li>• Aggravation of some heart disease (angina)</li> <li>• Reduced tolerance for exercise</li> <li>• Impairment of mental function</li> <li>• Impairment of fetal development</li> <li>• Death at high levels of exposure</li> </ul>
<b>Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)</b>	<ul style="list-style-type: none"> <li>• Reduced lung function</li> <li>• Aggravation of respiratory and cardio-respiratory diseases</li> <li>• Increases in mortality rate</li> <li>• Reduced lung function growth in children</li> </ul>
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness</li> </ul>
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema)</li> <li>• Reduced lung function</li> </ul>
<b>Lead (Pb)</b>	<ul style="list-style-type: none"> <li>• Behavioral and hearing disabilities in children</li> <li>• Nervous system impairment</li> </ul>

*Source: SCAQMD, Guidance Document for Air Quality Issues in General Plans and Local Planning, 2005.*

#### *Carbon Monoxide (CO)*

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reduction in birth weight and impaired neurobehavioral development has been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include pre-term births and heart abnormalities.

#### *Particulate Matter (PM<sub>10</sub> and PM<sub>2.5</sub>)*

A consistent correlation between elevated ambient particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and lung cancer.

Daily fluctuations in PM<sub>2.5</sub> concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children and to increased medication use in children and adults with asthma. Recent studies show that lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory or cardiovascular disease and children appear to be more susceptible to the effects of PM<sub>10</sub> and PM<sub>2.5</sub>.

#### *Nitrogen Dioxide (NO<sub>2</sub>)*

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO<sub>2</sub> in healthy individuals. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.

In animals, exposure to levels of NO<sub>2</sub> considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O<sub>3</sub> exposure increases when animals are exposed to a combination of O<sub>3</sub> and NO<sub>2</sub>.

#### *Sulfur Dioxide (SO<sub>2</sub>)*

A few minutes of exposure to low levels of SO<sub>2</sub> can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO<sub>2</sub>. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO<sub>2</sub>.

Animal studies suggest that despite SO<sub>2</sub> being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO<sub>2</sub> levels. In these studies, efforts to separate the effects of SO<sub>2</sub> from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or whether one pollutant alone is the predominant factor.

#### *Sulfates (SO<sub>x</sub>)*

Most of the health effects associated with fine particles and SO<sub>2</sub> at ambient levels are also associated with SO<sub>4</sub>. Thus, both mortality and morbidity effects have been observed with an increase in ambient SO<sub>4</sub> concentrations. However, efforts to separate the effects of SO<sub>4</sub> from the effects of other pollutants generally have not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than non-acidic particles like ammonium sulfate.

### *Lead (Pb)*

Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence levels. In adults, increased Pb levels are associated with increased blood pressure.

Pb poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early-age environmental exposure, and elevated blood Pb levels can occur due to the breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.

### *Toxic Air Contaminants (TACs)*

TACs are a broad class of compounds known to cause or contribute to cancer or non-cancer health effects, such as birth defects, genetic damage, and other adverse health effects. As discussed previously, effects from TACs may be both chronic and acute on human health. Acute health effects are attributable to sudden exposure to high quantities of air toxics. These effects include nausea, skin irritation, respiratory illness, and, in some cases, death. Chronic health effects can result from low-dose, long-term exposure from routine releases of air toxics. The effect of major concern for this type of exposure is cancer, which typically requires a period of 10 to 30 years after exposure to develop.

TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., benzene near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel particulate matter is a predominant TAC and accounts for approximately 70 percent of total known cancer risk related to air toxins in California. Based on 2012 estimates of statewide exposure, diesel particulate matter is estimated to increase statewide cancer risk by 520 cancers per million residents exposed over a lifetime.<sup>7</sup> According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified by the CARB as TACs and are listed as carcinogens either under California's Proposition 65 or under the federal Hazardous Air Pollutants programs. The U.S. EPA has adopted Ultra Low Sulfur Diesel (ULSD) fuel standards to reduce diesel particulate matter. As of June 1, 2006, refiners and importers nationwide have been required by the U.S. EPA to ensure that at least 80 percent of the volume of the highway diesel fuel they produce or import would be ULSD-compliant. As of

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<sup>7</sup> California Air Resources Board, *Overview: Diesel Exhaust and Health*, website: <https://www.arb.ca.gov/research/diesel/diesel-health.htm>, accessed March 2022.

December 10, 2010, only ULSD fuel is available for highway use nationwide. In California, which was an early adopter of ULSD fuel and engine technologies, 100 percent of the diesel fuel sold – downstream from refineries, up to and including fuel terminals that store diesel fuel – has been ULSD fuel since July 15, 2006. Since September 1, 2006, all diesel fuel offered for sale at retail outlets in California has been ULSD fuel.

The Proposed Project would generate certain air pollutants during construction and operation. The criteria pollutants would include ROG/VOC's, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> that can have adverse impacts on human health at certain levels of exposure. The impact analysis below attempts to correlate the increase in emissions that the Proposed Project would generate to potential adverse impacts on human health, even though the state of environmental science modeling at this time is not capable of identifying precisely how pollutant concentrations correlate directly or indirectly to the level of human health impacts. It should also be noted that the Proposed Project emissions are well below the applicable air emission thresholds of significance, which are created by the air districts, in part, to evaluate the potential impacts of criteria pollutants on human health.

### **C. Regulatory Framework**

Air quality in the United States is governed by the federal Clean Air Act (CAA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA).

Air quality within the Basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality within the Basin are discussed below.

#### **Federal Regulations**

##### ***The United States Environmental Protection Agency (U.S. EPA)***

The U.S. EPA is responsible for setting and enforcing the federal ambient air quality standards for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The U.S. EPA also has jurisdiction over emissions sources outside state waters (outer continental shelf) and establishes various emissions standards for vehicles sold in states other than California.

The U.S. EPA administers the CAA. The CAA was first established in 1963 to control air pollution and expand research in monitoring, and control techniques. Major amendments were added in 1970, 1977, and 1990. The 1970 amendment allowed for federal and state regulations to limit emissions stationary and mobile sources and established major regulatory programs, including the National Ambient Air Quality Standards (NAAQS), State Implementation Plans, New Source Performance Standards, and National Emissions Standards for Hazardous Air Pollutants (NESHAP). The 1977 amendment expanded these provisions, which included requirements for areas in attainment and non-attainment to NAAQS and established a permit review process to ensure attainment and maintenance of NAAQS. The 1990 amendments further expanded the authority and responsibility of the CAA, which included new programs and expanded existing programs governing acid rain, toxic air pollutants, other NAAQS standards, and O<sub>3</sub>

protection.<sup>8</sup> Title I (provisions on non-attainment areas) and Title II (provisions on mobile sources) of the CAA would be most applicable to the Proposed Project. Table 2, below, indicates pollutants and areas of attainment and non-attainment relative to the NAAQS.

As part of its enforcement responsibilities, the U.S. EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP). The SIP is a plan for each state which identifies how that state will attain and/or maintain the primary and secondary NAAQS set forth in Section 109 of the CAA. These plans are developed through a public process, formally adopted by the state, and submitted by the Governor's designee to the U.S. EPA. The CAA requires the U.S. EPA to review each plan and any plan revisions and to approve the plan or plan revisions if consistent with the CAA.

## State Regulations

### *California Air Resources Board (CARB)*

The CCAA was signed into law in 1988 and requires the CARB to adopt and maintain air quality standards (i.e., California Ambient Air Quality Standards (CAAQS)). All areas of the state are required to meet the CAAQS. Table 2 below, indicates pollutants and areas of attainment and non-attainment, relative to the CAAQS.

The CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hair spray, aerosol paints, and lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. In some cases, the state standards are more restrictive than the federal standards established under the CAA.

### *Off-Road Diesel Emissions*

Off-road diesel vehicles, which include construction equipment, are also regulated by the CARB for both in-use (existing) and new engines. CARB has set standards for four tiers of new off-road diesel engines. Tier 1 standards began in 1996. Tiers 2 and 3 were adopted in 2000 and were more stringent than the Tier 1 standards. Tier 2 and Tier 3 standards were completely phased in by 2006 and 2008, respectively. Tier 4 standards became effective in 2011. Tier 4 emission standards will reduce particulate matter and NO<sub>x</sub> emissions of late model cars to 90 percent below current levels.

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<sup>8</sup> U.S. EPA, *Evolution of the Clean Air Act*, website: <https://www.epa.gov/clean-air-act-overview/evolution-clean-air-act>, accessed March 2022.

**Table 2**  
**Ambient Air Quality Standards**

Air Pollutant	Averaging Time	CAAQS		NAAQS	
		State Standard	Attainment Status	Federal Standard	Attainment Status
O <sub>3</sub>	1 Hour	0.09 ppm	Non-attainment – Extreme	-- <sup>a</sup>	-- <sup>a</sup>
	8 Hour	0.07 ppm	Non-attainment	0.070 ppm <sup>b</sup>	Non-attainment - Extreme
CO	1 Hour	20.0 ppm	Attainment	35.0 ppm	Attainment
	8 Hour	9.0 ppm	Attainment	9.0 ppm	Attainment
NO <sub>2</sub>	1 Hour	0.18 ppm	Attainment	0.10 ppm	Attainment
	Annual	0.030 ppm	Attainment	0.053 ppm	Attainment
SO <sub>2</sub> <sup>c</sup>	1 Hour	0.25 ppm	Attainment	0.075 ppm	Attainment
	24 Hour	0.04 ppm	Attainment	0.14 ppm (for certain areas)	Attainment
Pb	30 Day	1.5 µg/m <sup>3</sup>	Attainment	-- <sup>a</sup>	-- <sup>a</sup>
	Calendar Quarter Year	-- <sup>a</sup>	-- <sup>a</sup>	1.5 µg/m <sup>3</sup>	Non-attainment (partial)
	Rolling 3-Month Average	-- <sup>a</sup>	-- <sup>a</sup>	0.15 µg/m <sup>3</sup>	Non-attainment (partial)
PM <sub>10</sub>	24 Hour	50 µg/m <sup>3</sup>	Non-attainment	150 µg/m <sup>3</sup>	Attainment
	Annual	20 µg/m <sup>3</sup>	Non-attainment	-- <sup>a</sup>	-- <sup>a</sup>
PM <sub>2.5</sub>	24 Hour	-- <sup>a</sup>	-- <sup>a</sup>	35 µg/m <sup>3</sup>	Non-attainment– Serious
	Annual	12 µg/m <sup>3</sup>	Non-attainment- Serious	12 µg/m <sup>3</sup> <sup>d</sup>	Non-attainment- Serious

Notes:

<sup>a</sup> Not applicable.

<sup>b</sup> On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.75 to 0.70 ppm.

<sup>c</sup> As of June 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99<sup>th</sup> percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

<sup>d</sup> The national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup> effective December 14, 2012.

Sources: CARB, Ambient Air Quality Standards, May 4, 2016, website: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, accessed March 2022, CARB: State Area Designation Maps, current as of August 2019 (State) and October 2018 (national) <http://www.arb.ca.gov/desig/adm/adm.htm>, accessed March 2022.

Since off-road vehicles that are used in construction and other related industries can last 30 years or longer, most of those that are in service today are still part of an older fleet that do not have emission controls. On July 26, 2007, the CARB approved the “In-Use Off-Road Diesel Fueled Fleets Regulation” to reduce

emissions from existing (in-use) off-road diesel vehicles that are used in construction and other industries. This regulation became effective on June 15, 2008, and sets an anti-idling limit of five minutes for all off-road vehicles 25 horsepower and up. It also establishes emission rates targets for the off-road vehicles that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. Revised in October 2016, the regulation enforced off-road restrictions on fleets adding vehicles with older tier engines, and started enforcing beginning July 1, 2014. By each annual compliance deadline, a fleet must demonstrate that it has either met the fleet average target for that year, or has completed the Best Available Control Technology (BACT) requirements. Large fleets have compliance deadlines each year from 2014 through 2023, medium fleets each year from 2017 through 2023, and small fleets each year from 2019 through 2028.

Reducing diesel particulate emissions is one of CARB's highest priorities and has set a long-term goal to reduce diesel particulate emissions by 85 percent by 2020. To further address TACs, CARB published the Air Quality and Land Use Handbook in April 2005, which discusses land use and planning strategies to protect sensitive receptors (such as children, pregnant women, the elderly, and those with existing health problems) from TAC emissions. This handbook serves as a general guide for local municipalities and agencies and is voluntary.<sup>9</sup>

## Regional Standards

### *Southern California Association of Governments (SCAG)*

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and forum for regional issues relating to transportation, the economy and community development, and the environment. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality.

On September 3, 2020, SCAG's Regional Council adopted the Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy). In 2012, SCAG adopted the region's first Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) – a plan that the Regional Council now calls Connect SoCal. Connect SoCal charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Connect SoCal builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern.

Connect SoCal is an important planning document for the region, allowing public agencies who implement transportation projects to do so in a coordinated manner, while qualifying for federal and state funding. Connect SoCal includes robust financial analysis that considers operations and maintenance costs to ensure our existing transportation system's reliability, longevity, resilience and cost effectiveness. In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act

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<sup>9</sup> CARB, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, website: <https://ww3.arb.ca.gov/ch/handbook.pdf>, accessed March 2022.

requirements. Connect SoCal also strives to achieve broader regional objectives, such as the preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries and more efficient use of resources.

As part of the State's mandate to reduce per-capita GHG emissions from automobiles and light trucks, Connect SoCal presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporate best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita vehicle miles traveled (VMT). These strategies identify how the SCAG region can implement Connect SoCal and achieve related GHG reductions. The following strategies are intended to be supportive of implementing the regional SCS: 1) focus growth near destinations and mobility options; 2) promote diverse housing options; 3) leverage technology innovations; 4) support implementation of sustainability policies; and 5) promote a green region.

### ***South Coast Air Quality Management District (SCAQMD)***

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with SCAG, county transportation commissions and local governments, and cooperates actively with state and federal government agencies. The SCAQMD develops air quality related rules and regulations, establishes permitting requirements, inspects emissions sources, and provides regulatory enforcement through such measures as educational programs or fines, when necessary.

### ***Air Quality Management Plan (AQMP)***

The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources to meet federal and state ambient air quality standards (CAA and CCAA discussed above). SCAQMD has responded to this requirement by preparing a series of AQMPs. The most recent 2022 AQMP was adopted by the Governing Board of the SCAQMD on December 2, 2022. The 2022 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2022 AQMP recognizes the critical importance of working with other agencies to develop funding and incentives that encourage the accelerated transition to cleaner vehicles, and the modernization of buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy.

The 2022 AQMP is composed of stationary and mobile source emission reduction strategies from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, furthering deployment of cleaner technologies, mobile source strategies and reductions from federal sources. These strategies are implemented in partnership with the CARB and the U.S. EPA. In addition, SCAG recently approved their 2020 RTP/SCS that include transportation programs, measures, and strategies generally designed to reduce VMT, which are contained within baseline emissions inventory in the 2022 AQMP. The transportation strategy and transportation control measures (TCMs), included as part of the 2022 AQMP and SIP for the Basin, are based on SCAG's 2020 RTP/SCS and Federal Transportation Improvement Program (FTIP). Some of the control measures achieve emission reductions by continuing existing regulatory requirements and programs and extensions of those programs, while some control

measures are not regulatory in form, but instead focus on incentives, outreach, and education to bring about emission reductions through voluntary participation and behavioral changes needed to complement regulations. In order to meet current standards, the 2022 AQMP builds upon past successes with new regulatory commitments for additional emissions reductions to the same extent as past AQMPs.

The future air quality levels projected in the 2022 AQMP are based on several assumptions. For example, the SCAQMD assumes that general new development within the Basin will occur in accordance with population growth and transportation projections identified by SCAG's 2020 RTP/SCS. The 2022 AQMP also assumes that general development projects will include feasible strategies (i.e., mitigation measures) to reduce emissions generated during construction and operation in accordance with SCAQMD and local jurisdiction regulations, which are designed to address air quality impacts and pollution control measures. The 2022 AQMP incorporates new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling. New scientific information on the health impacts of air pollution has led to progressively more stringent air quality standards to better protect public health. The SCAQMD has a long and productive history of reducing health risk from air toxics and criteria pollutant emissions through an extensive control program including traditional and innovative rules and policies. General development projects would be affected in the form of any applicable rules and regulations – if any – that are adopted as a result of the 2022 AQMP. While economic growth for the region is desirable, it presents a challenge to air quality improvement efforts since the projected growth could offset the impressive progress made in reducing volatile organic compounds (VOC), NO<sub>x</sub>, and PM<sub>2.5</sub> emissions through adopted regulations. Meeting the U.S. EPA's current and more-stringent future air quality standards will require the continuation of emission reduction efforts from all levels of government.

In addition to the AQMP, the SCAQMD has prepared the *CEQA Air Quality Handbook* (1993) to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects and plans proposed in the Basin. The AQMD is in the process of developing an "*Air Quality Analysis Guidance Handbook*" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993.

#### *SCAQMD Rules and Regulations*

The following SCAQMD-promulgated rules have been identified as being applicable to all or portions of the Proposed Project's construction activities and/or operations and are thus applicable to the Proposed Project.

**SCAQMD Rule 403 (Fugitive Dust).** The purpose of SCAQMD Rule 403 (Fugitive Dust) 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. The provisions of Rule 403 shall apply to any activity of man-made condition capable of generation fugitive dust. Rule 403 applies to the construction activities of the Proposed Project, especially the grading/excavation phase.

**SCAQMD Rule 1113 (Architectural Coatings).** Architectural coatings are any coatings applied to stationary structures or their appurtenances, or to fields and lawns. SCAQMD Rule 1113 (Architectural Coatings) is applicable to any person who supplies, sells, markets, offers for sale, or

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manufactures any architectural coating that is intended to be field applied within the District to stationary structures or their appurtenances, and to fields and lawns; as well as any person who applies, stores at a worksite, or solicits the application of any architectural coating within the District. The purpose of Rule 1113 is to limit the VOC content of architectural coatings used in the District. During the architectural coatings phase, the Proposed Project shall not add to such coating any colorant that contains VOC in excess of the corresponding applicable VOC limit specified in Rule 1113.

**SCAQMD Rule 1108 (Cutback Asphalt).** Cutback asphalt is a liquid petroleum product produced by fluxing an asphaltic base with suitable distillate and is classed as medium or slow curing grade. The provisions of SCAQMD Rule 1108 (Cutback Asphalt) state that a person shall not sell or offer for sale for use in the SCAQMD, or use any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260 degrees Celsius (500 degrees Fahrenheit) or lower as determined by ASTM Method D402 or other test method as approved by the Executive Officer. This rule applies to the paving phase of the Proposed Project.

**SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities:** This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

## Local Standards

### *City of Los Angeles General Plan Air Quality Element*

Local jurisdictions, such as the City of Los Angeles (City), have the authority and responsibility to reduce air pollution through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for implementation of the transportation control measures in the AQMP, such as bus turnouts, energy-efficient streetlights, and synchronized traffic signals. The City approved a comprehensive update to the long-term growth strategy in its General Plan. The Framework Element sets policy direction for the City's 35 Community Plan areas, in which detailed land use plans are described, and 12 citywide Elements (e.g., Mobility Plan 2035 and Housing). The Framework Element supports land use and transportation policies and patterns that will assist the region in meeting air quality goals, for example, by encouraging the location of residential and commercial uses near transit centers and continuing the City's "centers" development concept.

The Air Quality Element of the City's General Plan was adopted on November 24, 1992 and sets forth the goals, objectives and policies that guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality Element acknowledges that numerous efforts are underway at the regional, county, and City levels addressing clean air concerns and that coordination of these various efforts and the involvement of the area's residents are crucial to the achievement of state and federal air quality standards. The Air Quality Element also acknowledges the interrelationships among transportation and land

use planning in meeting the City's mobility and clean air goals. Mutually reinforcing strategies need to be developed to reduce the use of single occupant vehicles, vehicle trips, and vehicle miles traveled.

The Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels, and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

The City is also responsible for the implementation of transportation control measures as outlined in the AQMP. Through capital improvement programs, the City can fund infrastructure that contributes to improved air quality by requiring such improvements as bus turnouts as appropriate, installation of energy-efficient streetlights, and synchronization of traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

#### **D. Existing Air Quality Conditions**

##### *Existing Regional Air Quality*

The Project Site is located within the South Coast Air Basin (Air Basin). The Air Basin is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside counties. Ambient air quality is determined primarily by the type and amount of pollutants emitted into the atmosphere, as well as the size, topography, and meteorological conditions of a geographic area. The Basin has low mixing heights and light winds, which help to accumulate air pollutants.

The major sources of air pollution in the Air Basin are divided into four major source classifications: point, area, on-road, and off-road sources. Point and area sources are the two major subcategories of stationary sources. Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries). Area sources consist of many small emission sources (e.g., residential water heaters, consumer products and permitted sources) which are distributed across the region.

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On-road sources and off-road sources are the two main subcategories of mobile sources, such as cars and trucks (on-road sources) and heavy construction equipment (off-road sources).

### *Criteria Pollutants*

Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and CARB to assess and classify the air quality of each air basin, county, or, in some cases, a specific urbanized area. The classification is determined by comparing actual monitoring data with national and state standards. If a pollutant concentration in an area is lower than the standard, the area is classified as being in “attainment.” If the pollutant exceeds the standard, the area is classified as a “non-attainment” area. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.” The U.S. EPA and the CARB use different standards for determining whether the Basin is in attainment. Federal and state standards are summarized in Table 2, Ambient Air Quality Standards, above. The attainment status for the Los Angeles County portion of the Basin with regard to the NAAQS and CAAQS are also shown in Table 2. The CCAA designates air basins as either in attainment or non-attainment for each state air quality standard. The Basin is designated as a state and federal non-attainment area for O<sub>3</sub> and PM<sub>2.5</sub>. In addition, the Basin is designated as a state non-attainment area for PM<sub>10</sub>, and designated non-attainment for lead in the Los Angeles County portion of the Basin.

## **2. ENVIRONMENTAL IMPACTS**

### **A. Methodology**

This analysis focuses on the nature and magnitude of the change in the air quality environment due to the development of the Proposed Project. Construction activities would generate air pollutant emissions at the Project Site and on roadways resulting from construction-related traffic. Air pollutant emissions associated with the Proposed Project would also result from Project operations and from Project-related traffic volumes. The long-term operation of the Project also has the potential to generate air quality emissions, primarily in the form of day-to-day activities, such as residential uses and motor vehicle emissions from residents, visitors, and employees driving to and from the Project Site. The net increase in Project Site emissions generated by these activities and other secondary sources have been quantitatively estimated and compared to thresholds of significance recommended by the SCAQMD.

### **Construction Emissions**

#### *Regional Emissions*

The regional construction emissions associated with the Proposed Project were calculated using CalEEMod *Version 2022.1.1.12*. CalEEMod was developed in collaboration with the air districts of California as 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 emissions associated with both construction and operations from a variety of land use projects.

Construction activities associated with demolition, site grading, building construction, and architectural coatings would generate pollutant emissions. Specifically, these construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. These construction

emissions were compared to the thresholds established by the SCAQMD. It was assumed that all of the construction equipment used would be diesel-powered.

### *Localized Emissions*

In addition to the SCAQMD's regional significance thresholds, the SCAQMD has established localized significance criteria in the form of ambient air quality standards for criteria pollutants. To minimize the need for detailed air quality modeling to assess localized impacts, SCAQMD developed mass-based localized significance thresholds (LSTs) that are the amount of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by the SCAQMD, apply to projects that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards and are developed based on the ambient concentrations of that pollutant for each SRA. In terms of NO<sub>x</sub> emissions, the two principal forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>, with the vast majority (95 percent) of the NO<sub>x</sub> emissions being comprised of NO. However, because adverse health effects are associated with NO<sub>2</sub>, the analysis of localized air quality impacts associated with NO<sub>x</sub> emissions is focused on NO<sub>2</sub> levels. NO is converted to NO<sub>2</sub> by several processes, the two most important of which are (1) the reaction of NO with O<sub>3</sub>, and (2) the photochemical reaction of NO with hydrocarbons. When modeling NO<sub>2</sub> emissions from combustion sources, the SCAQMD assumes that the conversion of NO to NO<sub>2</sub> is complete at a distance of 5,000 meters from the source. For PM<sub>10</sub> LSTs, the thresholds were derived based on requirements in SCAQMD Rule 403 — Fugitive Dust. For PM<sub>2.5</sub> LSTs, the thresholds were derived based on a general ratio of PM<sub>2.5</sub> to PM<sub>10</sub> for both fugitive dust and combustion emissions. As described in more detail below, the resulting on-site construction emissions generated for each construction phase were analyzed against the applicable LST for each phase.

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a person in a population who is particularly susceptible to health effects due to exposure to an air contaminant. Sensitive receptors are typically located in the following land uses: residences, schools, playgrounds, child-care centers, convalescent centers, hospitals, long-term health care centers, retirement homes, and athletic fields.<sup>10</sup> Thus, according to the SCAQMD, the LSTs for PM<sub>10</sub> and PM<sub>2.5</sub>, which are based on a 24-hour averaging period, would be appropriate to evaluate the localized air quality impacts of a project on nearby sensitive receptors. Figure 2, Air Quality Sensitive Receptors, show the locations of nearby sensitive receptors that may be affected by the Proposed Project during the construction phase. The sensitive receptors surrounding the Project area include: the surrounding multi-family residences to the north, south, east, and west; and the high school located to the northeast of the Project Site.

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<sup>10</sup> SCAQMD, *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, May 6, 2005, Chapter 2, pg. 2-1, and SCAQMD, *CEQA Air Quality Handbook*, at page 1-2 and Fig. 1-2 (*Typical Sensitive Receptors*).

**[INSERT Figure 2, Air Quality Sensitive Receptors]**

LSTs are provided for each of SCAQMD's 38 source receptor areas (SRA) at various distances from the source of emissions. The Project Site is located within SRA 1, which covers the Central Los Angeles area and includes the Hollywood area. The Project Site's lot area is approximately 0.44 acres. Accordingly, the localized emissions thresholds for an approximate one-acre site were estimated for the Project Site, as recommended by the SCAQMD.<sup>11</sup> Thus, the localized thresholds for all phases of the Proposed Project are based on a receptor distance of 25 meters in SCAQMD's SRA 1 for a project site of one acre.

## Operational Emissions

### *Regional Emissions*

Operational emissions associated with the Proposed Project were calculated using CalEEMod *Version 2022.1.1.12* and the information provided in the proposed Site Plans (March 2022) prepared for the Proposed Project. Operational emissions associated with the Proposed Project would be comprised of mobile source emissions and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the Project Site associated with operation of the Proposed Project. Area source emissions are generated by natural gas consumption for space and water heating, and landscape maintenance equipment. To determine if a regional air quality impact would occur, the increase in emissions is compared with the SCAQMD's recommended regional thresholds for operational emissions.

### *Localized Emissions*

Localized impacts from Project operations include calculation of on-site emissions (e.g., combustion from natural gas usage) using SCAQMD's recommended CalEEMod program and evaluation of these emissions consistent with the SCAQMD's LST methodology.

Potential localized CO concentrations from induced traffic at nearby intersections are also addressed, consistent with the methodologies and assumptions used in the consistency analysis provided in the 2003 AQMP. The analysis prepared for CO attainment in the Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the Air Basin. CO attainment was thoroughly analyzed as part of the 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan).<sup>12</sup> In the 2003 AQMP, the SCAQMD conducted CO modeling for the four worst-case intersections in the Basin. These include (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; and (d) Long Beach Boulevard and Imperial Highway. The SCAQMD noted that the intersection of Wilshire Boulevard and Veteran Avenue was the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day.<sup>13</sup> This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The emission data provided in Table 4-10 of Appendix V of the 2003 AQMP demonstrates that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-

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<sup>11</sup> SCAQMD, *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf>, accessed March 2022.

<sup>12</sup> SCAQMD, *Federal Attainment Plan for Carbon Monoxide, 1992*.

<sup>13</sup> *Ibid.*

hour average) and 3.2 ppm (eight-hour average) at Wilshire Boulevard and Veteran Avenue.<sup>14</sup> When added to the existing background CO concentrations, the worst-case CO levels in the Basin would be 7.6 ppm (one-hour average) and 5.6 ppm (eight-hour average), which is well under the SCAQMD's thresholds of significance of 20 ppm (one-hour average), and 9.0 ppm (eight-hour average), respectively. Based on the ratio of the one-hour CO standard (20.0 ppm) and the modeled worse-case emission value (4.6 ppm) the CO threshold of significance would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. Thus, if a study intersection impacted by a project is below 400,000 vehicles a day, it can reasonably be concluded that the project would not generate a significant CO hotspot impact and no further analysis is warranted. If a study intersection impacted by the project exceeds 400,000 vehicles per day, further CO hotspot analysis using California LINE Source Dispersion Model, version 4 (CALINE4) is recommended.

## **B. Thresholds of Significance**

In accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would have a significant impact on air quality if it would:

***Threshold (a): Conflict with or obstruct implementation of the applicable air quality plan;***

***Threshold (b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;***

***Threshold (c): Expose sensitive receptors to substantial pollutant concentrations; or***

***Threshold (d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.***

With respect to addressing Threshold a, above, the SCAQMD has adopted criteria for consistency with regional plans and the regional AQMP in its CEQA Air Quality Handbook. Specifically, the indicators of consistency are: 1) whether the project would increase the frequency or severity of existing air quality violations or cause or contribute to new air quality violations; and 2) whether the project would exceed the assumptions utilized in preparing the AQMP.

With respect to addressing Threshold b and c, above, as the agency principally responsible for comprehensive air pollution control in the Basin, the SCAQMD recommends that projects should be evaluated in terms of air pollution control thresholds established by the SCAQMD and published in the CEQA *Air Quality Handbook*. These thresholds were developed by the SCAQMD to provide quantifiable levels to which projects can be compared. The most current significance thresholds, shown in Table 3, SCAQMD Air Quality Significance Thresholds, are used in this analysis.

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<sup>14</sup> *Ibid.*

**Table 3**  
**SCAQMD Air Quality Significance Thresholds**

Mass Daily Thresholds		
Pollutant	Construction	Operation
NO <sub>x</sub>	100 pounds/day	55 pounds/day
VOC <sup>a</sup>	75 pounds/day	55 pounds/day
PM <sub>10</sub>	150 pounds/day	150 pounds/day
PM <sub>2.5</sub>	55 pounds/day	55 pounds/day
SO <sub>x</sub>	150 pounds/day	150 pounds/day
CO	550 pounds/day	550 pounds/day

*Notes:*  
<sup>a</sup> The SCAQMD significance threshold is in terms of VOC while CalEEMod calculates reactive organic compounds (ROG) emissions. For purposes of this analysis, VOC and ROG are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.  
 Source: SCAQMD Air Quality Significance Thresholds, website: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>, Revision April 2019.

With respect to addressing Threshold d, above, the Proposed Project's potential to result in objectionable odors is based on an evaluation of the proposed land uses and operational activities and proximity of adjacent land uses that may be affected by odor sources. In most cases, odor issues can be resolved with additional control equipment, a change in siting of the operation that is generating the odor, or process change.

### C. Project Impacts

#### Consistency with the 2022 AQMP

A significant air quality impact may occur if the Proposed Project is not consistent with the applicable Air Quality Management Plan (AQMP) or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. In the case of projects proposed within the City of Los Angeles or elsewhere in the South Coast Air Basin (Basin), the applicable plan is the Air Quality Management Plan (AQMP), which is prepared by the South Coast Air Quality Management District (SCAQMD), which is the agency principally responsible for comprehensive air pollution control in the Basin. To that end, the SCAQMD, a regional agency, works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and cooperates actively with all state and federal government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

The Proposed Project is located within the South Coast Air Basin (Basin) and, therefore, falls under the jurisdiction of the SCAQMD. In conjunction with SCAG, SCAQMD is responsible for formulating and implementing air pollution control strategies. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a series of AQMPs. The most recent AQMP was adopted by the Governing Board of the South Coast Air Quality Management District (SCAQMD) on December 2, 2022 ("2022 AQMP"). The 2022 AQMP establishes a comprehensive air pollution control program leading to the attainment of State and

federal air quality standards in the Basin, which is a non-attainment area. The 2022 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gasses and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2022 AQMP recognizes the critical importance of working with other agencies to develop funding and incentives that encourage the accelerated transition to cleaner vehicles, and the modernization of buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy.

In addition, SCAG approved their Connect SoCal plan that include transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained within baseline emissions inventory in the AQMP. The transportation strategy and transportation control measures (TCMs), included as part of the AQMP and the State Implementation Plan (SIP) for the South Coast Air Basin, are based on SCAG's Connect SoCal and Federal Transportation Improvement Program (FTIP). For purposes of assessing a project's consistency with the AQMP, projects that are consistent with the growth forecast projections of employment and population forecasts identified in the Connect SoCal are considered consistent with the AQMP, since the growth projections contained in the Connect SoCal form the basis of the land use and transportation control portions of the AQMP.

As previously discussed, the Proposed Project is consistent with the regional growth projections for the Los Angeles Subregion and is consistent with the smart growth policies of Connect SoCal to increase housing density within close proximity to High-Quality Transit Areas (HQTA). An HQTA is defined as a generally walkable transit village or corridor within one half-mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The Proposed Project would concentrate new development within a half of a mile (walking distance) of several Metro bus lines that connect to all regions of the Los Angeles area. Additionally, the Project Site is served by one nearby Metro Station within a half-mile: the Hollywood/Western Station, located approximately 0.3 mile south of the Project Site. Thus, the Project Site's location provides opportunities for residents and visitors to use public transit to reduce vehicle trips. The Project Site is also located in a Transit Priority Area as defined by CEQA Sections 21099 and 21064.3. Studies by the California Department of Transportation, the U.S. Environmental Protection Agency and the Metropolitan Transportation Commission have found that focusing development in areas served by transit can result in local, regional and statewide benefits including reduced air pollution and energy consumption. The Proposed Project's close proximity to neighborhood-serving commercial/retail land uses and regional transit would result in fewer trips and a reduction to the Proposed Project's vehicle miles traveled (VMTs) as compared to the base trip rates for similar stand-alone land uses that are not located in close proximity to transit. Thus, because the Proposed Project would be consistent with the growth projections and regional land use planning policies of Connect SoCal, the Proposed Project would not conflict with or obstruct implementation of the 2022 AQMP, and Proposed Project impacts would be less than significant.

**Construction Emissions**

*Regional Construction Emissions*

For purposes of analyzing impacts associated with air quality, this analysis assumes a construction schedule of approximately 20 months with buildout anticipated in 2025. This assumption is conservative and yields the maximum daily impacts. Construction activities associated with the Proposed Project would be undertaken in four main steps: (1) demolition/site clearing; (2) grading/excavation; (3) building construction; and (4) finishing and architectural coatings. The entire construction phase includes the demolition of the existing structures, construction of the proposed building, connection of utilities to the building, and landscaping the Project Site. Construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities involving foundation preparation would primarily generate PM<sub>2.5</sub> and PM<sub>10</sub> emissions. Mobile sources (such as diesel-fueled equipment onsite and traveling to and from the Project Site) would primarily generate NO<sub>x</sub> emissions. The application of architectural coatings would primarily result in the release of ROG/VOC emissions. The amount of emissions generated on a daily basis would vary, depending on the amount and types of construction activities occurring at the same time.

Table 4, Estimated Peak Daily Construction Emissions, identifies daily emissions that are estimated to occur on peak construction days for each phase of the Proposed Project construction. These calculations assume that appropriate dust control measures would be implemented as part of the Proposed Project during each phase of development, as required and regulated by SCAQMD. As shown in Table 4, below, construction-related daily emissions associated with the Proposed Project would not exceed the regional SCAQMD significance thresholds for any of the six criteria pollutants during the construction phases.<sup>15</sup> Thus, the Proposed Project’s regional construction emissions would be less than significant. Therefore, construction air quality emissions will not conflict with or obstruct implementation of the applicable air quality plan.

**Table 4  
Estimated Peak Daily Construction Emissions**

Emission Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2024	1.48	15.7	15.2	0.03	3.37	1.76
2025	3.98	7.44	11.9	0.02	0.86	0.42
<b>Maximum Daily Construction Emissions:</b>	<b>3.98</b>	<b>15.7</b>	<b>15.2</b>	<b>0.03</b>	<b>3.37</b>	<b>1.76</b>
<b>SCAQMD Daily Significance Thresholds:</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

*Note: Calculations assume compliance with SCAQMD Rule 403 – Fugitive Dust and Rule 1113 – Architectural Coatings.  
Source: CalEEMod 2022.1.1.12, Calculation sheets are provided in Appendix A.*

<sup>15</sup> The construction timeline, equipment use, and daily activity assumptions used to generate these emissions are presented in Appendix A.

*Localized Construction Emissions*

The Project Site is located in Source Receptor Area (SRA) 1, which covers the Central Los Angeles County area and includes the Hollywood community. The nearest sensitive receptors that could potentially be subject to localized air quality impacts associated with construction of the Proposed Project include the surrounding multi-family residences to the north, south, east, and west; and the high school located to the northeast of the Project Site. Given the proximity of these sensitive receptors to the Project Site, the LSTs with receptors located within 25 meters (82.02 feet) are used to address the potential localized air quality impacts associated with the construction-related NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions for each construction phase. As shown in Table 5, Localized On-Site Peak Daily Construction Emissions, peak localized daily emissions generated during construction would not exceed the applicable construction LSTs for a one-acre site located in SRA 1. Therefore, the Proposed Project’s localized construction emissions would be less than significant.

**Table 5  
Localized On-Site Peak Daily Construction Emissions**

Construction Phase <sup>a</sup>	Total On-site Emissions (Pounds per Day)			
	NO <sub>x</sub> <sup>b</sup>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition	4.69	5.79	0.36	0.20
Site Preparation	13.3	13.4	2.68	1.56
Building Construction	7.36	9.31	0.36	0.33
Architectural Coatings	4.98	6.11	0.12	0.11
<b>SCAQMD Localized Thresholds <sup>c</sup></b>	<b>74</b>	<b>680</b>	<b>5</b>	<b>3</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<sup>a</sup> The localized thresholds for all phases are based on a receptor distance of 25 meters in SCAQMD’s SRA 1 for a Project Site of one acre. <sup>b</sup> The localized thresholds listed for NO <sub>x</sub> in this table takes into consideration the gradual conversion of NO <sub>x</sub> to NO <sub>2</sub> , and are provided in the mass rate look-up tables in the “Final Localized Significance Threshold Methodology” document prepared by the SCAQMD. As discussed previously, the analysis of localized air quality impacts associated with NO <sub>x</sub> emissions is focused on NO <sub>2</sub> levels as they are associated with adverse health effects. Source: CalEEMod 2022.1.1.12, Calculation sheets are provided in Appendix A to this report.				

**Regional Operational Emissions**

*Existing Emissions*

The Project Site is currently developed with an auto service center and a multi-family residential building with four dwelling units, which serves as the existing conditions baseline. The existing use generates air pollutant emissions from stationary sources, such as space and water heating, architectural coatings (paint), and mobile vehicle traffic traveling to and from the Project Site. The peak daily emissions generated by the existing uses at the Project Site were estimated utilizing the California Emissions Estimator Model (CalEEMod Version 2022.1.1.12). As shown in Table 6, motor vehicles are the primary source of air pollutant emissions associated with existing uses at the Project Site.

**Table 6  
Existing Daily Operational Emissions from Project Site**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summertime (Smog Season) Emissions</b>						
Mobile Sources	0.32	0.26	2.87	0.01	0.21	0.04
Area Sources	1.23	0.09	2.36	0.01	0.29	0.28
Energy Sources	<0.005	0.04	0.03	<0.005	<0.005	<0.005
<b>Total Emissions</b>	<b>1.55</b>	<b>0.39</b>	<b>5.25</b>	<b>0.01</b>	<b>0.50</b>	<b>0.32</b>
<b>Wintertime (Non-Smog Season) Emissions</b>						
Mobile Sources	0.32	0.29	2.63	0.01	0.21	0.04
Area Sources	1.19	0.08	2.03	0.01	0.29	0.28
Energy Sources	<0.005	0.04	0.03	<0.005	<0.005	<0.005
<b>Total Emissions</b>	<b>1.51</b>	<b>0.41</b>	<b>4.70</b>	<b>0.01</b>	<b>0.50</b>	<b>0.32</b>
<i>Note: Calculation worksheets are provided in Appendix A to this report. Parker Environmental Consultants 2022.</i>						

*Proposed Project Emissions*

The average daily emissions generated by operational uses of the Proposed Project are presented in Table 7, Proposed Project Estimated Daily Regional Operational Emissions, below. The Proposed Project would result in the demolition of the existing structures and the development of a multi-family residential building with 41 dwelling units. Operational emissions generated by both stationary and mobile sources would result from normal day-to-day activities of the Proposed Project. Area source emissions would be generated by the consumption of natural gas and landscape maintenance. Mobile emissions would be generated by the motor vehicles traveling to and from the Project Site. For purposes of estimating the Proposed Project’s net operational emissions, the existing emissions from the auto repair center and multi-family residential building were first calculated to quantify the emissions associated with the current land uses that occupy the Project Site. These existing emissions were then subtracted from the Proposed Project’s estimated operational emissions to establish the net air quality emissions that would be generated by the Proposed Project. As shown, the Proposed Project’s gross and net operational emissions are well below the regional thresholds of significance set by the SCAQMD. Therefore, impacts associated with regional operational emissions from the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan, and air quality impacts would be less than significant.

**Table 7**  
**Proposed Project Estimated Daily Regional Operational Emissions**

Emissions Source	Emissions in Pounds per Day					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Summertime (Smog Season) Emissions</b>						
Mobile Sources	0.40	0.31	3.52	0.01	0.29	0.06
Area Sources	1.42	0.03	3.04	<0.005	<0.005	<0.005
Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
Stationary Sources	0.82	3.67	2.09	<0.005	0.12	0.12
<b>Total Project Emissions:</b>	<b>2.64</b>	<b>4.01</b>	<b>8.65</b>	<b>0.01</b>	<b>0.41</b>	<b>0.18</b>
<i>Less Existing Emissions:</i>	<i>(1.55)</i>	<i>(0.39)</i>	<i>(5.25)</i>	<i>(0.01)</i>	<i>(0.50)</i>	<i>(0.32)</i>
<b>NET Project Emissions:</b>	<b>1.09</b>	<b>3.62</b>	<b>3.40</b>	<b>0.00</b>	<b>(0.09)</b>	<b>(0.14)</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Wintertime (Non-Smog Season) Emissions</b>						
Mobile Sources	0.40	0.34	3.24	0.01	0.29	0.06
Area Sources	1.09	--	--	--	--	--
Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
Stationary Sources	0.82	3.67	2.09	<0.005	0.12	0.12
<b>Total Project Emissions:</b>	<b>2.31</b>	<b>4.01</b>	<b>5.33</b>	<b>0.01</b>	<b>0.41</b>	<b>0.18</b>
<i>Less Existing Emissions:</i>	<i>(1.51)</i>	<i>(0.41)</i>	<i>(4.70)</i>	<i>(0.01)</i>	<i>(0.50)</i>	<i>(0.32)</i>
<b>NET Project Emissions:</b>	<b>0.80</b>	<b>3.60</b>	<b>0.63</b>	<b>0.00</b>	<b>(0.09)</b>	<b>(0.14)</b>
<b>SCAQMD Thresholds</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<i>Source: CalEEMod 2022.1.1.12, Calculation worksheets are provided in Appendix A to this report.</i>						

**Localized Operational Emissions**

Localized operational emissions from natural gas, architectural coatings, and consumer products would increase the amount of localized air pollution on the Project Site. The Proposed Project would replace an existing auto service center and a multi-family residential building with a newly constructed multi-family residential building with 41 dwelling units, which would introduce new sources of localized emissions to the area. Table 8, below, shows the net amount of on-site emissions from the operation of the Proposed Project. As shown, the Proposed Project’s on-site localized emissions would not exceed any of the localized thresholds of significance. Therefore, localized on-site operational emissions would be less than significant.

**Table 8**  
**Estimated Daily Localized Operational Emissions**

Emissions Source <sup>a, b</sup>	Total On-site Emissions (Pounds per Day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	0.03	3.04	<0.005	<0.005
Energy	0.00	0.00	0.00	0.00
Stationary	3.67	2.09	0.12	0.12
<b>Total On-Site Emissions:</b>	<b>3.70</b>	<b>5.13</b>	<b>0.12</b>	<b>0.12</b>
<b>SCAQMD Localized Thresholds</b>	<b>123</b>	<b>1,530</b>	<b>4</b>	<b>2</b>
<b>Potentially Significant Impact?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<sup>a</sup> The localized thresholds for all sources are based on a receptor distance of 25 meters in SCAQMD's SRA 1 for a Project Site of one acre. <sup>b</sup> Emissions from area and energy sources were analyzed, since mobile sources are off-site localized emissions. Area and energy emissions are the same for winter and summer months. Source: CalEEMod 2022.1.1.12, Calculation sheets are provided in Appendix A to this report.				

**Localized Mobile Source Emissions**

With regard to localized emissions from motor vehicle travel, traffic congested roadways and intersections have the potential to generate localized high levels of CO. However, as specified in the methodology subsection above, if a project intersection affected by the Proposed Project does not exceed 400,000 vehicles per day, then it can reasonably be concluded that the localized CO emissions would not exceed the SCAQMD's thresholds of significance without any further analysis. At buildout of the Proposed Project, the highest average daily trips at an intersection would be approximately 24,289 at the intersection of Franklin Avenue and Garfield Place,<sup>16</sup> which is significantly below the daily traffic volumes that would be expected to generate CO exceedances as evaluated in the 2003 AQMP. Based on a comparative assessment of the traffic volumes at this intersection, improved ambient CO concentrations, and cleaner vehicle emissions, localized operational emissions would be less than significant.

**Toxic Air Contaminants Impacts**

*Construction Impacts*

The greatest potential for TAC emissions during construction would be from diesel particulate emissions associated with heavy equipment operations. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually 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. Currently, the SCAQMD has not adopted any rules or methodology for the preparation of a Health Risk Assessment to assess health risks associated with short-term construction activities. Given the short-term construction schedule of

<sup>16</sup> LADOT performed traffic counts at this intersection in 2011. This intersection experienced 20,984 vehicles in a 24-hour period. Accounting for a 1% ambient annual increase plus 168 daily trips from the Proposed Project, this intersection would experience approximately 24,289 trips per day for a worst-case scenario, assuming all Project trips pass this intersection.

approximately 20 months, the Proposed Project would not result in a long-term (i.e., 70-year) source of TAC emissions. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period, construction TAC emissions would result in a less-than-significant impact. Furthermore, as discussed above, the Project would utilize a low-emissions construction fleet meeting the current emission standards of CARB's In-Use Off-Road Diesel Vehicle Regulation, C.C.R. Title 13, Section 2449). CARB regulations of diesel engines and fuels have had a dramatic effect on DPM concentrations. Since 1990, DPM levels have decreased by 68%.<sup>17</sup> Therefore, impacts associated with the generation and/or release of TACs during construction would be less than significant.

### *Operational Impacts*

The Proposed Project consists of a multi-family residential building with 41 dwelling units that would not support any land uses or activities that would involve the use, storage, or processing of carcinogenic or non-carcinogenic TACs. Additionally, as noted in CAPCOA's *Health Risk Assessments for Proposed Land Use Projects* (2009), the SCAQMD recommends that Health Risk Assessments (HRAs) be conducted for substantial sources of diesel particulate matter for developments that include truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units,<sup>18</sup> which does not apply to the Proposed Project. As such, no significant toxic airborne emissions would result from the operation of the Proposed Project.

### **Objectionable Odors**

#### *Construction Odors*

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents, as well as asphalt paving. SCAQMD Rules 1108 and 1113 limit the amount of volatile organic compounds from cutback asphalt and architectural coatings and solvents, respectively. Based on mandatory compliance with SCAQMD rules, no construction activities or materials that would create a significant level of objectionable odors are anticipated to occur. Therefore, construction odor impacts would be less than significant.

#### *Operational Odors*

The Proposed Project does not include any of the land uses identified by the SCAQMD as being associated with odors (such as agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, or fiberglass molding). In addition, SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts during the Proposed Project's long-term operations phase. The Proposed Project's residential uses would not generate a source of odors. Odors from garbage chutes and enclosed refuse containers would be controlled through standard best management practices and ongoing building maintenance procedures. Therefore, the Proposed Project's adherence SCAQMD Best Available Control Technology Guidelines would limit potential

<sup>17</sup> CARB Diesel Exhaust and Health, website: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>, accessed March 2022.

<sup>18</sup> CAPCOA Planning Managers, *Health Risk Assessments for Proposed Land Use Projects*, July 2009.

objectionable odor impacts during the Proposed Project's long-term operations phase. In conclusion, the Proposed Project would not create objectionable odors affecting a substantial number of people during construction or long-term operation. Therefore, impacts associated with operational odors from the Proposed Project would be less than significant, and no mitigation measures are required.

#### **D. Mitigation Measures**

The Proposed Project's air quality impacts would not exceed the regional and localized air quality thresholds. Therefore, no mitigation measures are required.

#### **E. Cumulative Impacts**

##### *AQMP Consistency*

Development of the Proposed Project in conjunction with other development projects within the Project Site vicinity would result in an increase in construction and operational emissions in the already urbanized area of the City of Los Angeles. The 2022 AQMP was prepared to accommodate growth, reduce pollutants within the areas under SCAQMD jurisdiction, improve the overall air quality of the region, and minimize the impact on the economy. Growth that is consistent with the 2022 AQMP would not interfere with attainment of air quality standards because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified by SCAG, implementation of the 2022 AQMP will not be obstructed by such growth and cumulative impacts would be less than significant. Since the Proposed Project would adhere to all applicable SCAQMD rules and regulations, Project construction activities would be consistent with the goals and objectives of the AQMP to improve air quality in the Basin. Furthermore, since the Proposed Project is consistent with SCAG's growth projections, it would not have a cumulatively considerable contribution to an impact regarding a potential conflict with or obstruction of the implementation of the applicable air quality plan. Thus, the Proposed Project's cumulative impacts related to conformance with the 2022 AQMP would be less than significant.

##### *Construction and Operational Emissions*

Cumulative air quality impacts from construction and operation of the Proposed Project, based on SCAQMD guidelines, are analyzed in a manner similar to Project-specific air quality impacts. The SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project specific impacts. Therefore, according to the SCAQMD, individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in non-attainment. Thus, as discussed above, because the construction-related and operational daily emissions associated with Proposed Project would not exceed the SCAQMD's recommended thresholds, these emissions associated with the Proposed Project would not be cumulatively considerable. Therefore, cumulative air quality impacts would be less than significant.

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*Odor Impacts*

With respect to cumulative odor impacts, potential sources that may emit odors during construction activities at the Proposed Project and each related project include the use of architectural coatings, solvents, and asphalt paving. SCAQMD Rules 1108 and 1113 limit the amount of volatile organic compounds from cutback asphalt and architectural coatings and solvents, respectively. Moreover, based on mandatory compliance with SCAQMD Rules, construction activities and materials used in the construction of the Proposed Project would not combine with other projects to create objectionable construction odors. With respect to operations, SCAQMD Rules 402 (Nuisance) and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts from the related projects and the Proposed Project's long-term operations phase. Thus, cumulative odor impacts would be less than significant.

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