IV. Environmental Impact Analysis

A. Air Quality

1. Introduction

This section evaluates the Project's potential impacts on air quality. This section estimates the air pollutant emissions generated by demolition of the existing building and whether Project emissions would conflict with or obstruct implementation of the applicable air quality plan; result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard; expose sensitive receptors to substantial pollutant concentrations; or result in other emissions, such as those leading to odors, affecting a substantial number of people. Air quality data utilized in the preparation of this section is included as **Appendix B** of this Draft EIR.

2. Environmental Setting

a) Air Quality Background

(1) Air Quality and Public Health

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of an overall endeavor to prevent further deterioration and to facilitate improvement in air quality. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety, and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.[1] As the scientific methods for the study of air pollution health effects have progressed over the past decades, adverse effects have been shown to occur at lower levels of exposure. For some pollutants, no clear thresholds for effects have been demonstrated. New findings over time have, in turn, led to the revision and lowering of NAAQS which, in the judgment of the U.S. Environmental Protection Agency (USEPA), are necessary to protect public health. Ongoing assessments of the scientific evidence from health studies continue

[1] *USEPA, NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed December 2021.*

to be an important part of setting and informing revisions to federal and state air quality standards[2]. The NAAQS and CAAQS are listed in **Table IV.A-1, Ambient Air Quality Standards.**

Table IV.A-1
Ambient Air Quality Standards

Pollutants		Primary/ Secondary	Average Time	Level	Form
Carbon Monoxide (CO)		Primary	8 hours	9 ppm	Not to be exceeded more than once per year
			1 hour	35 ppm	
Lead (Pb)		Primary and secondary	Rolling 3 month average	0.15 µg/m^{3,a}	Not be exceeded
Nitrogen Dioxide (NO_2)		Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Primary and secondary	1 year	53 ppb[b]	Annual Mean
Ozone (O_3)		Primary and secondary	8 hours	0.070 ppm[c]	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particle Pollution (PM)	$PM_{2.5}$	Primary	1 year	12.0 µg/m^3	annual mean, averaged over 3 years
		Secondary	1 year	15.0 µg/m^3	annual mean, averaged over 3 years
		Primary and secondary	24 hours	35.0 µg/m^3	98th percentile, averaged over 3 years
	PM_{10}	Primary and secondary	24 hours	150.0 µg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO_2)		Primary	1 hour	75 ppb[d]	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		Secondary	3 hours	0.5 ppb	Not to be exceeded more than once per year

ppm = parts per million by volume
µg/m^3 = micrograms per cubic meter

a In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.

b The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

c Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O_3 standards.

d The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO_2 standards or is not meeting the requirements of a SIP call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

[2] *SCAQMD, Final 2016 AQMP, 2017. Appendix I-69. Accessed December 2021.*

Table IV.A-1
Ambient Air Quality Standards

Pollutants	Primary/ Secondary	Average Time	Level	Form
Source: USEPA, NAAQS Table, https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed December 2021.				

At the regional level, the South Coast Air Quality Management District (SCAQMD) is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside and San Bernardino Counties, including the Coachella Valley.[3] The City of Los Angeles is located within the South Coast Air Basin (Air Basin) which is a distinct geographic subarea within the SCAQMD's jurisdiction. The SCAQMD, together with the Southern California Association of Governments (SCAG), has the responsibility for ensuring that national and State ambient air quality standards are achieved and maintained for the Air Basin. Failure to comply with these standards puts State and local agencies at risk for penalties in the form of lawsuits, fines, a federal takeover of state implementation plans, and a loss of funds from federal agencies such as the Federal Highway Administration and Federal Transit Administration.

To meet the air quality standards, regional plans are developed, including the SCAQMD's Air Quality Management Plan (AQMP), which incorporates regional demographic projections and integrated regional land use and transportation strategies from SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). These plans work together to examine multiple pollutants, cumulative effects, and transport issues related to attaining healthful air quality in the region. In addition, a host of regulatory standards at the federal, State, regional, and local level function to identify and limit exposure of air pollutants and toxic air contaminants (TACs).

(2) Local Air Quality and Air Pollution Sources

As mentioned above, the City of Los Angeles is located within the South Coast Air Basin, which is an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east; and San Diego County to the south. The Air Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the Coachella Valley area in Riverside County. The regional climate within the Air 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 Air Basin is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

The Air Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the

[3] *SCAQMD, Map of Jurisdiction, 1999.*

lower layer. This phenomenon is observed in mid to late afternoons on hot summer days. Winter inversions frequently break by midmorning.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problem is the accumulation of carbon monoxide (CO) and nitrogen oxides (NO_X) due to low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog.

Air pollutant emissions within the Air Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to 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, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

(3) Air Pollutant Types

(a) Criteria Pollutants

The six principal pollutants for which national and State criteria and standards have been promulgated, known as “criteria pollutants”, and which are most relevant to current air quality planning and regulation in the Air Basin include ozone (O_3), respirable and fine particulate matter (PM_{10} and $PM_{2.5}$, respectively), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them.

(i) Ozone (O_3)

O_3 is a gas that is formed when volatile organic compounds (VOCs) and 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. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

(ii) Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Respirable and fine particulate matter, 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, such as pollen and windstorms, are naturally occurring. However, in areas such as the City of Los Angeles, most particulate matter is caused by road dust, diesel soot, combustion products, abrasion of tires and brakes, and construction activities. The human body naturally prevents the entry of larger particles into the body. However, small particles can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates can potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates can become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

(iii) Carbon Monoxide (CO)

CO is a colorless, odorless gas primarily emitted from combustion processes and motor vehicles due to incomplete combustion of carbon-containing fuels, such as gasoline or wood. In urban areas, such as the City of Los Angeles, automobile exhaust accounts for the majority of CO emissions. 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 Air Basin. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations

(iv) Nitrogen Dioxide (NO_2)

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 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 areas, particularly in urban areas such as the City of Los Angeles, may be exposed to higher concentrations of NO_2 than those indicated by regional monitors. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. NO_X irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of O_3.

(v) Sulfur Dioxide (SO_2)

Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the predominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of SO_2, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

(vi) Lead (Pb)

Pb is a metal found naturally in the environment as well as in manufactured products. The highest levels of Pb in air are usually found near Pb smelters. The major sources of Pb emissions to the air are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Pb is also emitted from the sanding or removal of old lead-based paint (LBP). Pb emissions are primarily a regional pollutant. Pb affects the brain and other parts of the body's nervous system. Exposure to Pb in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

(b) Additional Criteria Pollutants (California Only)

In addition to the national standards, the State of California regulates State-identified criteria pollutants, including sulfates (SO_4^2), hydrogen sulfide (H_2S), visibility-reducing particles, and vinyl chloride. With respect to the State-identified criteria pollutants, most land use development projects either do not emit them (i.e., H_2S [nuisance odor] and vinyl chloride), or otherwise account for these pollutants (i.e., $SO_4^2$and visibility reducing particles) through other criteria pollutants. For example, $SO_4^2$are associated with SO_X emissions, and visibility-reducing particles are associated with particulate matter emissions. A description of the health effects of the State-identified criteria air pollutants is provided below.

(i) Sulfates (SO_4^2)

$SO_4^2$are the fully oxidized ionic form of sulfur. SO_4^2occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to SO_4^2in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. $SO_4^2$are particularly effective in degrading visibility, and, due to the fact that they are usually acidic, can harm ecosystems and damage materials and property.

(ii) Hydrogen Sulfide (H_2S)

H_2S is a colorless gas with the odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of H_2S include petrochemical plants and kraft paper mills. H_2S is also formed during bacterial decomposition of human and animal wastes, and is present in emissions from sewage treatment facilities and landfills.[4] Exposure to H_2S can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 parts per million (ppm), which is considerably higher than the odor threshold.[5] H_2S is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level.[6]

(iii) Visibility-Reducing Particles

Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. Certain visibility-reducing particles are directly emitted to the air, such as windblown dust and soot, while others are formed in the atmosphere through chemical transformations of gaseous pollutants (e.g., SO_4^2, nitrates, organic carbon particles) which are the major constituents of particulate matter. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range.[7] Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM_{10} and $PM_{2.5,}$ as discussed above.[8]

(iv) Vinyl Chloride

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and is generally emitted from industrial processes. Other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.[9] Short-term health of effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.[10] Most health data on vinyl chloride relate to carcinogenicity; thus, the people most at risk are those who have long-term exposure to elevated levels, which is more likely to occur in occupational or industrial settings;

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4 *CARB, Hydrogen Sulfide & Health, 2019.*
5 *CARB, Hydrogen Sulfide & Health, 2019.*
6 *CARB, Hydrogen Sulfide & Health, 2019*
7 *CARB, Visibility-Reducing Particles and Health, last reviewed October 11, 2016.*
8 *California Air Resources Board, Visibility-Reducing Particles and Health.*
9 *California Air Resources Board, Vinyl Chloride & Health, https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health. December 2021.*
10 *California Air Resources Board, Vinyl Chloride & Health.*

however, control methodologies applied to industrial facilities generally prevent emissions to the ambient air.[11]

(c) Volatile Organic Compounds (VOCs) and Toxic Air Contaminants (TACs)

Although the SCAQMD's primary mandate is attaining the NAAQS and the CAAQS for criteria pollutants within the district, SCAQMD also has a general responsibility to control emissions of air contaminants and prevent endangerment to public health. As a result, the SCAQMD has regulated pollutants other than criteria pollutants such as VOCs, TACs, greenhouse gases (GHGs), and stratospheric O_3-depleting compounds.

(i) VOCs

VOCs are organic chemical compounds of carbon and are not "criteria" pollutants themselves; however, VOCs are a prime component (along with NO_X) of the photochemical processes by which such criteria pollutants as O_3, NO_2, and certain fine particles are formed. They are therefore regulated as "precursors" to formation of these criteria pollutants. Some are also identified as TACs and have adverse health effects. VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings, etc.).

(ii) Toxic Air Contaminants (TACs)

TACs is a term used to describe airborne pollutants that may be expected to result in an increase in mortality or serious illness or which may pose a present or potential hazard to human health, and include both carcinogens and non-carcinogens. The California Air Resources Board (CARB) and the California Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. CARB has listed approximately 200 toxic substances, including those identified by the USEPA, which are identified on the California Air Toxics Program's TAC List. TACs are also not classified as "criteria" air pollutants. The greatest potential for TAC emissions during construction is related to diesel particulate matter (DPM) emissions associated with heavy-duty equipment. During long-term operations, sources of DPM may include heavy duty diesel-fueled delivery trucks and stationary emergency generators. The effects of TACs can be diverse and their health impacts tend to be local rather than regional; consequently ambient air quality standards for these pollutants have not been established, and analysis of health effects is instead based on cancer risk and exposure levels.

b) Regulatory Framework

There are several plans, regulations, and programs that include policies, requirements, and guidelines regarding Air Quality at the federal, state, regional, and local levels. As described below, these plans, guidelines, and laws include the following:

[11] *California Air Resources Board, Vinyl Chloride & Health.*

- Federal Clean Air Act
    - National Ambient Air Quality Standards
- California Clean Air Act
    - California Ambient Air Quality Standards
- California Code of Regulations
- State Programs for Toxic Air Contaminents
- Diesal Reduction Program
- South Coast Air Quality Management District
    - Air Quality Management Plan and Regional Transportation Plan/Sustainable Communities Strategy
    - Air Quality Guidance Documents
    - Rules and Regulations
- City of Los Angeles Quality Element
- City of Los Angeles Plan for a Healthy LA

(1) Federal

(a) Federal Clean Air Act

The Federal Clean Air Act (CAA) was enacted in 1970 and has been amended numerous times in subsequent years, with the latest amendments occurring in 1990.[12] The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare.[13] The USEPA is responsible for the implementation and enforcement of the CAA, which establishes NAAQS, specifies future dates for achieving compliance, and requires the USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to land use development projects include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).[14]

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. **Table IV.A-2, Ambient Air Quality Standards**, shows the NAAQS currently in effect for each criteria pollutant. The Air Basin fails to meet national standards for O_3 and $PM_{2.5}$ and, therefore, is considered a federal “non-attainment” area for these pollutants.

Title II pertains to mobile sources, which includes on-road vehicles (e.g. cars, buses, motorcycles) and non-road vehicles (e.g. aircraft, trains, construction equipment). Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For

[12] *42 United States Code §7401 et seq. (1970).*
[13] *USEPA, Clean Air Act, 1963.*
[14] *USEPA, Clean Air Act Overview, Clean Air Act Table of Contents by Title, Last Updated January 3, 2017.*

example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

The NAAQS, and the CAAQS for the California criteria air pollutants (discussed below), have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

Table IV.A-2
Ambient Air Quality Standards

Air Pollutant	Averaging Period	California Standard [a,b]	Federal Standard [a,b]	SCAQMD Attainment Status [c]	
				California Standard [d]	Federal Standard [d]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	--	Non-Attainment	--
	8 Hour	0.07 ppm (137 µg/m^3)	0.07 ppm (137 µg/m^3)	Non-Attainment	Non-Attainment (Extreme)
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	150 µg/m^3	Non-Attainment	Attainment
	Annual	20 µg/m^3	--		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	--	35 µg/m^3	Non-Attainment	Non-Attainment (Serious)
	Annual	12 µg/m^3	12 µg/m^3		
Carbon Monoxide (CO)	1 Hour	20.0 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Attainment	Attainment
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)		
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm (339 µg/m^3)	0.10 ppm (188 µg/m^3)	Attainment	Unclassified / Attainment
	Annual	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)		
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	Attainment	Unclassified / Attainment
	3 hour	--	0.5 ppm (1,300 µg/m^3)		
	24 hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)		
	Annual	--	0.03 ppm (655 µg/m^3)		
Lead	30 Day Average	1.5 µg/m^3	--	Attainment	Partial Non-Attainment [e]
	Rolling 3-Month Average	--	0.15 µg/m^3		
Sulfates	24 Hour	25 µg/m^3	--	Attainment	--
Hydrogen	1 hour	0.03 ppm	--	Unclassified	--

Table IV.A-2
Ambient Air Quality Standards

Air Pollutant	Averaging Period	California Standard [a,b]	Federal Standard [a,b]	SCAQMD Attainment Status [c]	
				California Standard [d]	Federal Standard [d]
Sulfide (H_2S)		(42 µg/m^3)			

Notes: ppm = parts per million by volume; µg/m^3 = microgram per cubic meter
a An ambient air quality standard is a concentrated level expressed in either parts per million or micrograms per cubic meter and averaged over a specific time period (e.g., 1 hour). The different averaging times and concentrations are meant to protect against different exposure effects. Some ambient are quality standards are expressed as a concentration that is not to be ex ceded. Others are expressed as a concentration that is not to be equaled or exceeded.
b Ambient Air Quality Standards based on the 2016 AQMP.
c "Attainment" means that the regulatory agency has determined based on established criteria, that the Air Basin meets the identified standard. "Non-Attainment" means that the regulatory agency has determined that the Air Basin does not meet the standard. "Unclassified" means that there is insufficient data to designate an area, or designations have yet to be made.
d California and federal standard attainment status based on SCAQMD's 2016 AQMP.
e An attainment re-designation request is pending.
Source (table): EcoTierra Consulting Inc., 2020.

(2) State

(a) California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practicable date. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. **Table IV.A-2** includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the state. As shown in **Table IV.A-2**, the CAAQS include more stringent standards than the NAAQS. The Air Basin fails to meet State standards for O_3, PM_{10}, and $PM_{2.5}$ and, therefore, is considered "non-attainment" for these pollutants.

(b) California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled,

compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

(c) State Programs for Toxic Air Contaminents

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of Airborne Toxic Control Measures (ATCMs), both for stationary and mobile sources, including On-Road and Off-Road Vehicle Rules. These ATCMs include measures such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment in order to reduce public exposure to DPM and other TACs. These actions are also supplemented by the Assembly Bill (AB) 2588 Air Toxics "Hot Spots" program and Senate Bill (SB) 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD has further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

(d) Diesel Risk Reduction Program

CARB identified particulate emissions from diesel-fueled engines as TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which moved us into the risk management phase of the program. CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines* and the *Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines*. The Diesel Advisory Committee approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific statewide regulations designed to further reduce DPM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce DPM emissions.

(3) Regional

(a) South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is primarily responsible for planning, implementing, and enforcing air quality standards for the South Coast Air Basin. The

Air Basin is a subregion within the western portion of the SCAQMD jurisdiction, as the SCAQMD also regulates portions of the Salton Sea Air Basin and Mojave Desert Air Basin within Riverside County.

(i) Air Quality Management Plan and Regional Transportation Plan/Sustainable Communities Strategy

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs, which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The 2016 AQMP includes strategies to ensure that rapidly approaching attainment deadlines for O_3 and $PM_{2.5}$ are met and that public health is protected to the maximum extent feasible. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions[15] sufficiently to meet the upcoming O_3standard deadlines, as NO_X plays a critical role in the creation of O_3. The AQMP's strategy to meet the 8-hour O_3 standard in 2023 should lead to sufficient NO_X emission reductions to attain the 1-hour O_3 standard by 2022. Since NO_X emissions also lead to the formation of $PM_{2.5}$, the NO_X reductions needed to meet the O_3 standards will likewise lead to improvement of $PM_{2.5}$ levels and attainment of $PM_{2.5}$ standards.[16] [17]

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State and local levels and industries. The 2016 AQMP is composed of stationary and mobile source emission reductions from traditional regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile source strategies, and reductions from federal sources, which include aircraft, locomotives and ocean-going vessels. These strategies are to be implemented in partnership with the CARB and USEPA.

The AQMP also incorporates the transportation strategy and transportation control measures from SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Plan[18]. SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. The RTP/SCS includes transportation programs, measures,

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[15] *NOx emissions are a precursor to the formation of both O_3 and secondary $PM_{2.5}$.*

[16] *Estimates are based on the inventory and modeling results and are relative to the baseline emission levels for each attainment year (see Final 2016 AQMP for detailed discussion).*

[17] *SCAQMD, Final 2016 AQMP, 2017. Page ES-2. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp. Accessed December 2021.*

[18] *SCAG, Final 2016 RTP/SCS, 2016 https://scag.ca.gov/resources-prior-plans. Accessed December 2021.*

and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The SCAQMD combines its portion of the AQMP with those prepared by SCAG.[19] The RTP/SCS and Transportation Control Measures, included as Appendix IV-C of the 2016 AQMP, are based on SCAG's 2016-2040 RTP/SCS.

The 2016 AQMP forecasts the 2031 emissions inventories ''with growth'' based on SCAG's 2016-2040 RTP/SCS. The region is projected to see a 12 percent growth in population, 16 percent growth in housing units, 23 percent growth in employment, and 8 percent growth in VMT between 2012 and 2031. Despite regional growth in the past, air quality has improved substantially over the years, primarily due to the effects of air quality control programs at the local, State and federal levels.[20]

On September 3, 2020, SCAG's Regional Council adopted the 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS was determined to conform to the federally-mandated state implementation plan (SIP), for the attainment and maintenance of NAAQS standards. On October 30, 2020, CARB also accepted SCAG's determination that the SCS met the applicable future State GHG reduction targets of 19 percent. The 2020-2045 RTP/SCS will be incorporated into the forthcoming 2022 AQMP.

(ii) SCAQMD Air Quality Guidance Documents

The SCAQMD published the *CEQA Air Quality Handbook* (approved by the SCAQMD's Governing Board in 1993) to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts.[21] The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD has provided supplemental guidance on the SCAQMD website[22].

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions.[23] SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). The SCAQMD's document introduces land use-related policies that rely on design and distance parameters to minimize emissions and

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[19] *SCAQMD, Final 2016 AQMP, 2017. Page ES-2. http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp. Accessed December 2021.*

[20] *SCAQMD, Figure 1-4 of the Final 2016 AQMP.*

[21] *South Coast Air Quality Management District, CEQA Air Quality Handbook 1993, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). Accessed December 2021.*

[22] *SCAQMD, Air Quality Analysis Guidance, http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook#. Accessed December 2021.*

[23] *SCAQMD Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, 2005, http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4. Accessed December 2021.*

lower potential health risk. SCAQMDs guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction or operation of a project.[24] The SCAQMD adopted additional guidance regarding $PM_{2.5}$ emissions in a document called *Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds*.[25] The latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology.*

(iii) SCAQMD Rules and Regulations

The SCAQMD has adopted several rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards for land use development projects, which include, but are not limited to the following:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the Project:

- **Rule 401 – Visible Emissions:** This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

- **Rule 402 – Nuisance:** This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- **Rule 403 – Fugitive Dust:** This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter (µg/m3) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Best available control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical

[24] *SCAQMD, Final Localized Significance Threshold Methodology, June 2003 (Revised July 2008).*
[25] *SCAQMD, Final Methodology to Calculate Particulate Matter (PM)2.5 and PM2.5 Significance Thresholds, 2006.*

stabilizers and/or ceasing all activities. Finally, a contingency plan may be required if so determined by the USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for specific sources. The following is a list of rules which may apply to the Project:

- **Rule 1113 – Architectural Coatings:** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

- **Rule 1138 – Control of Emissions from Restaurant Operations:** This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.

- **Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NO_X emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.

- **Rule 1186 – PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations:** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM_{10} emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Regulation XIII – New Source Review (NSR): Regulation XIII sets requirements for preconstruction review required under both federal and state statutes for new and modified sources located in areas that do not meet the Clean Air Act standards ("non-attainment" areas). NSR applies to both individual permits and entire facilities. Any permit that has a net increase in emissions is required to apply Best Available Control Technology (BACT). Facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). The regulation provides for the application, eligibility, registration, use and transfer of ERCs. For low emitting facilities, the SCAQMD maintains an internal bank that can be used to provide the required offsets. In addition, certain facilities are subject to provisions that require public notice and modeling analysis to determine the downwind impact prior to permit issuance.

Regulation XIV – Toxics and Other Non-Criteria Pollutants: Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria pollutants. The following is a list of rules which may apply to the Project:

- **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.

- **Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines:** This rule applies to stationary compression ignition (CI) engines greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

(4) Local

(a) City of Los Angeles General Plan

(i) Air Quality Element

Local jurisdictions, such as the City, have the authority and responsibility to reduce air pollution through their land use decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. In general, the City of Los Angeles' General Plan (including the Framework, Air Quality, Mobility 2035, and Health and Wellness Elements) and the City of Los Angeles' Green New Deal (Sustainability pLAn 2019) contain policies and programs for the protection of the environment and health through improved air quality. These serve to provide additional critical guidance for the betterment of public health for the region and City.

The most directly-related of those plans, the City's General Plan Air Quality Element, was adopted on November 24, 1992, and sets forth the goals, objectives, and policies which guide the City in its implementation of its air quality improvement programs and strategies. A number of these goals, objectives, and policies are relevant to land use development, and relate to traffic mobility, minimizing particulate emissions from construction activities, discouraging single-occupancy vehicle trips, managing traffic congestion during peak hours, and increasing energy efficiency in City facilities and private developments.

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;
- Minimal 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.

(ii) Plan for a Health Los Angeles

The Plan for a Healthy Los Angeles, adopted by the City Council on March 31, 2015, lays the foundation to create healthier communities for all residents in the City. As an element of the General Plan, it provides high-level policy vision, along with measurable objectives and implementation programs, to elevate health as a priority for the City's future growth and development. With a focus on public health and safety, the Plan for a Healthy Los Angeles provides a roadmap for addressing the most basic and essential quality-of-life issues: safe neighborhoods, a clean environment (i.e., improved ambient and indoor air quality), the opportunity to thrive, and access to health services, affordable housing, and healthy and sustainably produced food.

c) Existing Conditions

(1) Existing Regional Air Quality

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. Exhaust emissions from mobile sources generate the majority of ROG, CO, NO_x, and SO_x both in the Basin generally and specifically the Los Angeles County portion of the Basin. Area-wide sources generate the most airborne particulates (i.e., PM_{10} and $PM_{2.5}$) in both the Basin and Los Angeles County. Measurements of ambient concentrations of the criteria pollutants are used by the U.S. EPA and the 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 were previously summarized in **Table IV.A-2, Ambient Air Quality Standards**. The attainment status for the Los Angeles County portion of the Basin

with regard to the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS) are shown in **Table IV.A-3, Attainment Status for the South Coast Air Basin (Los Angeles County Portion)**.

Table IV.A-3
Attainment Status for the South Coast Air Basin
(Los Angeles County)

Pollutant	Attainment Status	
	NAAQS	CAAQS
Ozone (1-Hour)	Non-Attainment (Extreme)	Non-Attainment
Ozone (8-Hour)	Pending – Expect Non-Attainment (Extreme)	Non-Attainment
Carbon Monoxide (1- & 8-hour)	Attainment (Maintenance)	Attainment
Nitrogen Dioxide (1-Hour)	Unclassifiable/Attainment	Attainment
Nitrogen Dioxide (Annual)	Attainment (Maintenance)	Attainment
Sulfur Dioxide (1-Hour)	Designations Pending (expect Unclassified/Attainment)	Attainment
Sulfur Dioxide (24-Hour & Annual)	Unclassified/Attainment	Attainment
PM_{10} (24-Hour)	Attainment (Maintenance)	Non-Attainment
PM_{10} (Annual)	N/A	Non-Attainment
$PM_{2.5}$ (24-Hour)	Non-Attainment (Serious)	N/A
$PM_{2.5}$ (Annual)	Non-Attainment (Moderate)	Non-Attainment
Lead	Non-Attainment (Partial)	Attainment

Source: South Coast Air Quality Management District, Air Quality Management Plan Appendix II website: http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-ii.pdf?sfvrsn=4, accessed: September 2019. Federal Nonattainment Areas for Criteria Pollutants (Green Book), website: https://www.epa.gov/green-book: accessed September 2019. Area Designation Maps/State and National, website: https://ww3.arb.ca.gov/desig/adm/adm.htm: accessed September 2019.

The SCAQMD divides the Basin into 38 source receptor areas (SRAs), wherein 38 monitoring stations operate to monitor the various concentrations of air pollutants in the region. The Project Site is located within SRA 1 covering Central Los Angeles. The Los Angeles – North Main Street Station is the closest station to the Project Site that collects ambient air quality data within SRA 1. This station monitors emission levels of O_3, CO, NO_2, SO_2, Sulfates, lead, PM_{10}, and $PM_{2.5}$. **Table IV.A-4, Summary of Ambient Air Quality in the Project Vicinity,** identifies the federal and State ambient air quality standards for the relevant air pollutants, along with the ambient pollutant concentrations that were measured in SRA 1 between 2017 and 2019.[26]

[26] *Most current air quality data available.*

Table IV.A-4
Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 1 (Central Los Angeles Area)	Year		
	2017	2018	2019
Ozone (O_3)			
Maximum 1-hour concentration measured	0.116 ppm	0.098 ppm	0.093
Number of days exceeding previous national 0.124 ppm 1-hour standard	0	0	0
Number of days exceeding State 0.09 ppm 1-hour standard	6	2	0
Maximum 8-hour concentration measured	0.086 ppm	0.073 ppm	0.080
Number of days exceeding national 0.07 ppm 8-hour standard	14	4	2
Number of days exceeding State 0.07 ppm 8-hour standard	14	4	2
Suspended Particulates (PM_{10})			
Maximum 24-hour concentration measured	96.2 µg/m^3	81.2 µg/m^3	93.9
Number of days exceeding national 150 µg/m^3 24-hour standard	0	0	0
Number of days exceeding State 50 µg/m^3 24-hour standard	40	31	15
Annual Arithmetic Mean (AAM)	25.7 µg/m^3	30.2 µg/m^3	23.0 µg/m^3
Does measured AAM exceed national 150 µg/m^3 AAM standard?	No	No	No
Does measured AAM exceed State 20 µg/m^3 AAM standard?	**Yes**	**Yes**	**Yes**
Fine Particulates ($PM_{2.5}$)			
Maximum 24-hour concentration measured	61.7 µg/m^3	65.3 µg/m^3	43.5 µg/m^3
Number of days exceeding national 35.0 µg/m^3 24-hour standard	6	6	1
Annual Arithmetic Mean (AAM)	12.0 µg/m^3	12.8 µg/m^3	10.8 µg/m^3
Does measured AAM exceed national 35 µg/m^3 AAM standard?	No	No	No
Does measured AAM exceed State 12 µg/m^3 AAM standard?	No	**Yes**	No
Carbon Monoxide (CO)			
Maximum 1-hour concentration measured	*	*	*
Days exceeding national 35.0 ppm 1-hour standard	0	0	0
Days exceeding State 20.0 ppm 1-hour standard	0	0	0
Maximum 8-hour concentration measured	*	*	*
Number of days exceeding national 9.0 ppm 8-hour standard	0	0	0
Number of days exceeding State 9.0 ppm 8-hour standard	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration measured	0.080 ppm	0.070 ppm	0.069
Number of days exceeding State 0.18 ppm 1-hour standard	0	0	0
Sulfur Dioxide (SO2)			
Maximum 1-hour concentration	0.0057 ppm	0.0179 ppm	0.01 ppm
Days exceeding 1-hour national 0.075 ppm standard	0	0	0
Lead (Pb)			
Maximum monthly average concentration	0.017 µg/m^3	0.011 µg/m^3	0.012 µg/m^3
Days exceeding State 1.5 µg/m^3 standard	0	0	0
Maximum 3-month rolling averages	0.01 µg/m^3	0.01 µg/m^3	0.01 µg/m^3

Table IV.A-4
Summary of Ambient Air Quality in the Project Vicinity

Air Pollutants Monitored Within SRA 1 (Central Los Angeles Area)	Year		
	2017	2018	2019
Days exceeding national 0.15 µg/m^3 standard	0	0	0
Sulfate (SO_4^{2-})			
Maximum 24-hour concentration	5.1	4.5	5.1
Number of days exceeding 25 µg/m^3 24-hour standard	0	0	0

ppm = parts by volume per million of air
ppb = parts by volume per billion of air
µg/m^3=micrograms per cubic meter
n/a = data not available or not collected by the District
** Means there was insufficient data available to determine value.*
Source: https://www.arb.ca.gov/adam/topfour/topfour1.php, accessed: October 2020 and SCAQMD, Historical Data by Year, accessed May 2021.

(a) Ozone

During the 2017 to 2019 monitoring period, the State 1-hour concentration standard for ozone was exceeded six days in 2017, two days 2018, and no days in 2019 at the Los Angeles – North Main Street Station. The State 8-hour ozone standard was exceeded 14 days in 2017, 4 days in 2018, and 2 days in 2019 at the Los Angeles – North Main Street Station. The Federal 8-hour ozone standard was also exceeded 14 days in 2017, 4 days in 2018, and 2 days in 2019 at the Los Angeles – North Main Street Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

(b) Carbon Monoxide

CO is another important pollutant that is emitted mainly by motor vehicles. The Los Angeles – North Main Street Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

(c) Nitrogen Dioxide

The Los Angeles – North Main Street Station did not record an exceedance of the State or Federal NO_2 standards in the last three years.

(d) Particulate Matter

The State 24-hour concentration standard for PM_{10} was exceeded 40 days in 2017, 31 days in 2018, and 15 days in 2019 at the Los Angeles – North Main Street Station. Over the past three years, the Los Angeles Station did not record an exceedance of the Federal 24-hour standards for PM_{10}. The Federal 24 hour standard for $PM_{2.5}$ was exceeded six days in 2017 and 2018 and

one day in 2019 at the Los Angeles – North Main Street Station. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM_{10} and $PM_{2.5}$). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

(2) Sensitive Receptors and Locations

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be to be a receptor such as residence, hospital, convalescent facility where it is possible that an individual could remain for 24 hours. In addition, CARB has identified the following typical groups who are most likely to be affected by air pollution: children under 14 years of age; the elderly over 65 years of age; athletes; and people with cardiovascular and chronic respiratory diseases. Land uses such as primary and secondary schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality because the very young, the old, and the infirm are more susceptible to respiratory infections and other air quality-related health problems than the general public. Recreational areas are considered moderately sensitive to poor air quality because vigorous exercise associated with recreation places a high demand on the human respiratory function.

The nearest sensitive receptors to the Project Site include: the residential portions of the mixed-use land uses located approximately 20 feet to the east (E on Grand), 50 feet to the south (Onyx, directly across West Pico Boulevard), and approximately 50 feet to the west (Hope and Flower, across South Hope Street). Other air quality sensitive land uses are located further from the Project Site and would experience lower impacts.

3. Project Impacts

a) Thresholds of Significance

In accordance with the State *CEQA Guidelines* Appendix G (Appendix G), the Project would have a significant impact related to 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.***

For this analysis, the Appendix G Thresholds listed above are relied upon. The analysis utilizes factors and considerations identified in the *L.A. CEQA Thresholds Guide* (Thresholds Guide), as appropriate, to assist in answering the Appendix G Threshold questions:

(1) Construction

The Thresholds Guide states that the determination of significance shall be made on a case-by-case basis, considering the following criteria to evaluate construction-related air emissions:

(a) Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

(b) Fugitive Dust: Grading, Excavation and Hauling

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

(c) Fugitive Dust: Heavy-Duty Equipment Travel on Unpaved Roads

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

(d) Other Mobile Source Emissions

- Number and average length of construction worker trips to Project Site, per day; and
- Duration of construction activities.

(2) Operation

The Thresholds Guide states that the determination of significance shall be made on a case-by-case basis, considering the following criteria to evaluate operation-related air emissions:

- Whether operational emissions exceed 10 tons per year of volatile organic gases or any of the Operational emissions exceed 10 tons per year of volatile organic gases or any of the daily thresholds presented below (as reprinted from the SCAQMD CEQA Air Quality Handbook):

Pollutant	Significance Threshold (lbs/day)
ROG	55
NO_X	55
CO	550
PM_{10}	150
SO_X	150

- Whether either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:
  - A proposed project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or
  - The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.
- Whether the project creates an objectionable odor at the nearest sensitive receptor.

(3) Toxic Air Contaminants

The Thresholds Guide states that the determination of the significance of a project's impacts related toxic air contaminants shall be made on a case-by-case basis, considering the following criteria to evaluate toxic air contaminants:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;

- The likelihood and potential level of exposure; and
- The degree to which Project design will reduce the risk of exposure.

(4) SCAQMD's CEQA Air Quality Handbook

To further assist in answering the Appendix G Threshold questions and threshold provided by SCAQMD, the City utilizes SCAQMD's CEQA Air Quality Handbook and the thresholds of significance below as the guidance documents for the environmental review of development proposals within the Air Basin. **Table IV.A-5, SCAQMD Air Quality Significance Thresholds**, shows the currently recommended supplemental thresholds by SCAQMD in the CEQA Air Quality Handbook, which is intended to translate the CEQA Guidelines thresholds into numerical values or performance standards.

Table IV.A-5
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds a		
Pollutants	**Construction (lbs/day) b**	**Operation (lbs/day)**
NO^X	100	55
VOC	75	55
PM^{10}	150	150
$PM^{2.5}$	55	55
SO^X	150	150
CO	550	550
Lead	3	3
Toxic Air Contaminants and Odor Thresholds		
TACs (including carcinogens and non-carcinogens	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants		
NO_2 1-hour average Annual Arithmetic Mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average Annual Average	10.4 μg/m^3 (construction) & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction) & 2.5 μg/m^3 (operation)	
SO_2 1-hour Average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 (state/federal	

Table IV.A-5
SCAQMD Air Quality Significance Thresholds

Lead	
30-day average	1.5 μg/m^3 (state)
Rolling 3-month average	0.15 μg/m^3 (federal)

Notes: lbs = pounds; ppm = parts per million; μg/m^3 = micrograms per cubic meter
a SCAQMD CEQA Handbook (SCAQMD, 1993)
b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
Source: South Coast Air Quality Management District, 2019.

(a) Construction

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook,*[27] the Project may have a significant impact with regard to construction emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD-prescribed threshold levels identified in **Table IV.A-5** above.
- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 μg/m^3] over a 1-hour period or 9.0 ppm [10,350 μg/m^3] averaged over an 8-hour period) and NO^2 (0.18 ppm [338.4 μg/m^3] over a 1-hour period, 0.1 ppm [188 μg/m^3] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [56.4 μg/m^3] averaged over an annual period).
- Maximum on-site localized emissions of PM_{10} and/or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hour threshold of 10.4 μg/m^3 or 1.0 μg/m^3 PM_{10} averaged over an annual period.

(b) Operation

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook,*[28] the Project may have a significant impact with regard to operational emissions if any of the following would occur:

- Regional emissions from both direct and indirect sources would exceed any of the SCAQMD prescribed threshold levels identified in **Table IV.A-5 above**.
- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average

[27] *South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.*
[28] *South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.*

of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[29]

- Maximum on-site localized operational PM_{10} and/or $PM_{2.5}$ emissions exceed the incremental 24-hour threshold of 2.5 µg/m^3 or 1.0 µg/m^3 PM^{10} averaged over an annual period.[30]

- The Project causes or contribute to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or

- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

(c) Toxic Air Contaminants

Based on the criteria set forth in SCAQMD's *CEQA Air Quality Handbook,*[31] the Project may have a significant toxic air contaminant impact if:[32]

- The Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental chronic and acute cancer risk as provided in **Table IV.A-5 above**.

In assessing impacts related to TACs in this section, the City will use Appendix G as the thresholds of significance. The criteria factors identified above from the Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds. In addition, the following criteria factors set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under Appendix G thresholds:[33]

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[34] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

(d) Consistency with Applicable Air Quality Plans

CEQA Guidelines Section 15125 requires an analysis of project consistency with applicable governmental plans and policies. In accordance with SCAQMD's *CEQA Air Quality Handbook,*[35]

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29 *South Coast Air Quality Management District, LST Methodology.*
30 *South Coast Air Quality Management District, Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds, October 2006.*
31 *South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.*
32 *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), 1993.*
33 *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants), 1993.*
34 *South Coast Air Quality Management District, Air Quality Emissions Thresholds, March 2015.*
35 *South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.*

the following criteria were used to evaluate the Project's consistency with the SCAQMD and SCAG regional plans and policies, including the AQMP:

- Criterion 1: Will the Project result in any of the following:
    - An increase in the frequency or severity of existing air quality violations;
    - Cause or contribute to new air quality violations; or
    - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?
    - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
    - Does the Project include air quality mitigation measures; or
    - To what extent is Project development consistent with the AQMP control measures?

The Project's impacts with respect to these criteria are discussed to assess the consistency with SCAQMD's AQMP. In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

(e) Cumulative Impacts

Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. As discussed in the SCAQMD's White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution:

> *As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR…Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.*

The cumulative analysis of air quality impacts within this Draft EIR follows SCAQMD's guidance such that construction or operational Project emissions will be considered cumulatively considerable if Project-specific emissions exceed an applicable SCAQMD recommended daily threshold.

b) Methodology

This analysis focuses on the nature and magnitude of the change in the air quality environment due to implementation of the Project. Air pollutant emissions associated with the Project would result from Project operations and traffic volumes. Construction activities would also generate air pollutant emissions at the Project Site and on roadways resulting from construction traffic. The 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 SCAQMD. A detailed description of the calculations used in this analysis is provided in **Appendix B** to this Draft EIR.

As shown below, emissions were calculated for the Project and energy-saving compliance features, including, but not be limited to, the following that would reduce emissions:

- Ten (10) percent of the required and proposed parking spaces will have chargers for electric vehicles and thirty (30) percent of the required and provided parking spaces will be pre-plumbed for future electric vehicle charging;
- Low-water use plumbing fixtures;
- Energy-efficient elevator;
- Energy-efficient glazing and window frames;
- Energy-efficient mechanical systems and appliances;
- Energy-efficient lighting; and
- Low-water use landscaping and irrigation.

(1) Construction Emissions

Emissions are estimated using the CalEEMod (Version 2016.3.2) software, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality impacts from land use projects throughout California and is recommended by the SCAQMD.[36]

[36] *South Coast Air Quality Management District, California Emissions Estimator Model, http://www.aqmd.gov/ caleemod/.*

(a) Regional Construction Emissions

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The input values used in this analysis were adjusted to be project-specific for the construction schedule and the equipment used was based on CalEEMod defaults. The CalEEMod program uses the EMFAC2014 computer program to calculate the emission rates specific for Los Angeles County for construction-related employee vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy truck operations. EMFAC2014 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Daily truck trips and CalEEMod default trip length data were used to assess roadway emissions from truck exhaust. The maximum daily emissions are estimated values for the worst case day and do not represent the emissions that would occur for every day of project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators. Detailed construction equipment lists, construction scheduling, and emission calculations are provided in **Appendix B** to this Draft EIR.

Construction activities associated with demolition, grading/excavation, building construction, and application of 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 regional thresholds established by the SCAQMD. It should be noted that the City may in its discretion permit an 86 percent parking reduction in connection with the Zone Variance to reduce parking at the Project Site from 233 vehicular parking spaces to 52 vehicular parking spaces, which would require one subterranean parking level instead of three levels as proposed by the Project.[37] The analysis in this section assumes and quantifies emissions from the construction of the proposed three level subterranean parking structure, which would therefore result in a more conservative analysis if the 86 percent parking reduction is permitted by the City for the Project as less grading would be required.

(b) Local Construction 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.

[37] *The parking reduction would support the anticipated parking requirements in DTLA 2040, the City's joint update of the Central City Community Plan and Central City North Community Plan. In the current draft of DTLA 2040, the Project Site is proposed to have no parking minimums as part of the Transit Core.*

These localized thresholds, which are found in the mass rate look-up tables in the "Final Localized Significance Threshold Methodology" document prepared by SCAQMD, apply to daily construction areas that are less than or equal to five acres in size and are only applicable to the following criteria pollutants: NO_x, CO, PM_{10}, and $PM_{2.5}$. 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 Source Receptor Area (SRA).

In terms of NO_x emissions, the two principal species of NO_x are nitric oxide (NO) and NO_2, with the vast majority (95 percent) of the NO_x emissions being comprised of NO. However, because adverse health effects are associated with NO_2, the analysis of localized air quality impacts associated with NO_x emissions is focused on NO_2 levels. NO is converted to NO_2 by several processes, the two most important of which are (1) the reaction of NO with ozone and (2) the photochemical reaction of NO with hydrocarbons. When modeling NO_2 emissions from combustion sources, SCAQMD assumes that the conversion of NO to NO_2 is complete at a distance of 5,000 meters from the source.

For PM10 LSTs, the thresholds were derived based on requirements in SCAQMD Rule 403 — Fugitive Dust. For PM2.5 LSTs, the thresholds were derived based on a general ratio of PM2.5 to PM10 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.

According to SCAQMD, the LSTs for PM10 and PM2.5, 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. Additionally, since nearby sensitive receptors are considered to remain close to the Project Site for 24 hours (i.e. residents adjacent to the Project Site), LSTs based on shorter averaging times, such as the one-hour NO2 or the one-hour and eight-hour CO ambient air quality standards, would also apply when evaluating localized air quality impacts on sensitive receptors.

(c) SCAQMD's Rules 403 and 1113

The Project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the Project area (approximately 1.25 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures are used for all grading operations and include the application of water or other

soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 has been included in the CalEEMod modeling for the Project.

The Project also will be required to comply with SCAQMD Rule 1113 as amended on June 3, 2011. Under this Rule, the VOC content of architectural coatings applied after January 1, 2014 must be limited to an average of 50 grams per liter or less. CalEEMod defaults have been adjusted accordingly.

The phases of the construction activities which have been analyzed below for each phase are: (1) demolition, (2) site preparation, (3) grading, (4) building construction, (5) paving, and (6) application of architectural coatings. Details pertaining to the project's construction timing and the type of equipment modeled for each construction phase are available in the CalEEMod output in **Appendix B** of this Draft EIR.

(2) Regional Operational Emissions

The operations-related criteria air quality impacts created by the Project have been analyzed through the use of the CalEEMod model. The operating emissions were based on the year 2024, which is the anticipated opening year per the Traffic Assessment for the Morrison Mixed-Use Project Traffic Impact Analysis (TIA) prepared by Overland Traffic Consultants, Inc. (September 2020) for the Project. The operations daily emissions printouts from the CalEEMod model are provided in **Appendix B** of this Draft EIR. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

(a) Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the Project. The vehicle trips associated with the Project have been analyzed by inputting the Project - generated vehicular trips (trip generation rate) from the TIA into the CalEEMod Model. The TIA found that the Project will generate approximately 5,603 total trips per day (includes reductions for transit, internal capture, pass-by, and reductions for the Transportation Demand Management Plan [TDMP], which is required by the City's Trip Reduction Ordinance). Trip generation rates include 3.78 trips per dwelling unit per day for the apartment use (with incorporation of the 15 percent transit reduction), 7.11 trips per room for the hotel use (with incorporation of the 15 percent transit reduction), 61.03 trips per thousand square foot per day for the high-turnover restaurant (with incorporation of the 15 percent transit reduction, 20 percent internal capture reduction, and 20 percent pass-by reduction), 57.0 trips per thousand square foot per day for the quality restaurant/rooftop lobby/restaurant lounge use (with incorporation of the 15 percent transit reduction, and 20 percent internal capture reduction), and 53.1 trips per thousand square foot per day for the immersive museum use (with incorporation of the 15 percent transit reduction and 20 percent internal capture reduction.

No subtraction was taken for the elimination of the existing commercial and residential uses. The program then applies the default emission factors for each trip which is provided by the EMFAC2014 model to determine the vehicular traffic pollutant emissions.

(b) Area Sources

Per the CAPCOA Appendix A Calculation Details for CalEEMod, area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

(c) Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

(d) Stationary Sources

Stationary sources for the Project include emissions from emergency generators. The Project Site is to include a 2682 horsepower (HP) emergency generator that operates approximately 11 hours per year.[38] A diesel particulate matter filter will be installed on the vent. The CalEEMod stationary source parameters have been adjusted accordingly.

(3) Local Operational Emissions

As discussed above, the SCAQMD has developed LSTs that are based on 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. However, because the LST methodology is applicable to projects where emission sources occupy a fixed location (such as warehouse/transfer facilities), LST methodology would typically not apply to the operational phase of the Project because the Project's emissions are primarily generated by mobile sources traveling on local roadways over potentially large distances or areas. The Project would include a mix of residential, commercial and restaurant land uses and would not generate significant onsite emissions; however, to be conservative, an operational LST analysis is provided below. Localized impacts from Project operation included calculation of on-site emissions (e.g., combustion from natural gas usage) using SCAQMD's LST methodology.

[38] *Per the project applicant, the emergency generator is anticipated to operate for approximately 30 minutes every month with one annual run of approximately 90 minutes. In addition, there is to be a one-time start up run that is anticipated to last for approximately 3.5 hours. Therefore, total annual operational hours is anticipated to be approximately 11 hours (7.5 hours for maintenance plus 3.5 hours for start-up run). However, after the first year, the generator would only run 7.5 hours per year.*

(4) Adverse Air Quality Impacts and Health Effects

The Supreme Court's *Sierra Club v. County of Fresno* (2018) 6 Cal. 5th 502 (*Friant Ranch)* opinion requires EIRs for projects to "relate the expected adverse air quality impacts to likely health consequences or explain why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the project" (*Friant Ranch*, page 510). In response to *Friant Ranch*, the City prepared a guidance document titled Air Quality and Health Effects (Sierra Club v. County of Fresno) in October 2019,[39] which provides information regarding the health consequences associated with exposure to air pollutants. The document also explains that directly correlating a project's pollutant emissions with anticipated health effects is currently infeasible because no expert agency (including SCAQMD) has approved a quantitative method to reliably and meaningfully translate mass emission estimates of criteria air pollutants to specific health effects for the scale of projects typically analyzed in project-specific EIRs.

According to Air Quality Health Effects, the feasibility of determining a connection between air pollutant emissions and human health is different for a site-specific project, such as a development project or local area plan, than for a larger regional scale analysis of an area-wide project, such as an analysis for a regulation change for the entire Air Coast Basin. As such, directly correlating a single project's emissions in an EIR for a typical development project to quantifiable human health consequences is currently not scientifically feasible, as it is not possible to conduct such an analysis that would provide reliable or meaningful results. It is also infeasible to correlate regional emissions from local area-wide projects or plans identified in EIRs for development projects to quantified human health consequences in any reliable or meaningful way, for many of the same reasons, and with additional challenges associated with separating and anticipating reasonably foreseeable emissions from other sources.

From a scientific standpoint, it takes a large amount of additional precursor emissions (NO_x, SO_2, VOCs, etc.) to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP showed that reducing baseline year 2008 NO_X by 432 tons per day and reducing VOC by 187 tons per day would only reduce ozone levels at SCAQMD's monitor site with the highest levels by only 9 parts per billion. This is a relatively immaterial change in local ozone concentrations for a large decrease in regional ozone precursors (NOx and VOCs).[40] SCAQMD also conducted pollutant modeling for proposed Rule 1315 in which the CEQA analysis accounted for essentially all of the increases in emisssions due to new or modified sources in SCAQMD between 2010 and 2030, or approximately 6,620 pounds per day of NO_X and 89,947 pounds per day of VOC. The results of the analysis showed that this increase of regional pollutant emissions would contribute to a small increase in the Air Basin wide ozone concentrations in 2030 by 2.6 ppb and less than 1 ppb of NO_2. Again, this is a relatively immaterial increase in ozone concentrations despite the expected very large increase in regional ozone precursors.

[39] *Sacramento Metropolitan Air Quality Management District, Guidance To Address The Friant Ranch Ruling For CEQA Projects In The Sac Metro Air District, June 2020.*

Due to the relatively small size of the Project, it would not be feasible to model the impact on attainment of the ambient air quality standards that regional emissions from the Project may have with any degree of reliability or certainty. The currently available tools are equipped to model the impact of all emission sources in an air basin on attainment, but lack the resolution to reliably model ozone concentrations from smaller sources of ozone precursors such as individual projects. Therefore, ozone modeling for the Project is infeasible and would not provide meaningful data to assess health impacts.

In addition, running the regional-scale photochemical grid model used for predicting ozone attainment with the emissions from the Project (which equates to less than two-tenths of 1 percent of the VOC and NO_X in the air basin) would not yield reliable information regarding a measurable increase in ozone concentrations sufficient to accurately quantify the Project's ozone-related health impacts. Any modeled increase in ozone concentrations would not be useful for a meaningful analysis, as the increase would be so comparatively small that it would be well within the error margins of such models. Therefore, a general description of the adverse health impacts resulting from the pollutants at issue is all that can be feasibly provided at this time.

c) Project Design Features

See Project Design Feature (PDF) TR-1 outlined in **Section IV.K., Transportation,** of this Draft EIR which would reduce air quality impacts by developing a Construction Staging and Traffic Management Plan. The Construction Staging and Traffic Management Plan would reduce impacts to sensitive receptors by ensuring haul trucks follow a specified haul route, and do not travel through residential neighborhoods. The Construction Staging and Traffic Management Plan would also include coordination with nearby projects that have potential overlapping construction timeframes. While this PDF would be beneficial, this air quality analysis does not take the PDF into account in the quantitative calculation of air quality emissions. Thus, the analysis of construction impact provides a conservative analysis of the project's potential impacts.

d) Analysis of Project Impacts

Threshold a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

(1) Impact Analysis

(a) 2016 Air Quality Management Plan

The discussion below addresses the Project's consistency with applicable SCAQMD and SCAG policies, including the SCAQMD's 2016 AQMP and growth projections within the SCAG 2016–2040 RTP/SCS.[41] In accordance with the procedures established in the SCAQMD's CEQA Air

[41] *It should be noted that the circulation of the NOP for the Project was on February 23, 2018, which was prior to the adoption of the 2020-2045 RTP/SCS, and therefore the analysis focuses on the Project's consistency with the 2016-2040 RTP/SCS.*

Quality Handbook, the following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- Criterion 1: Would the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations; or
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

- Criterion 2: Would the project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or
  - To what extent is Project development consistent with the AQMP land use policies?

Both of these criteria are evaluated in the following sections.

(i) Criteria 1 - Increase in the Frequency or Severity of Violations

The Project is an infill development near transit within an existing urbanized area that would concentrate ***new*** residential uses within a SCAG-designated HQTA. This means the Project advances regional goals to reduce VMT through infill development near transit that has the co-benefit of reducing air emissions and GHG emissions compared to the average regional project. As shown below, the Project would not exceed any SCAQMD significance thresholds for air quality emissions.

As shown in **Table IV.A-7**, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. As shown in **Table IV.A-8** long-term operations impacts will not result in significant impacts based on the SCAQMD regional thresholds of significance.

Therefore, as the Project meets SCAQMD thresholds, the Project is not projected to: contribute to the exceedance of any air pollutant concentration standards, cause or contribute to new air quality violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP. Therefore, the Project is found to be consistent with the AQMP for the first criterion.

(ii) Criteria 2 - Exceed Assumptions in the AQMP

Consistency with the AQMP assumptions is determined by performing an analysis of the Project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the Project are based on the same forecasts as the AQMP. The 2016-2040 Regional Transportation/Sustainable Communities Strategy prepared by SCAG (2016) includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA.

For this Project, the City of Los Angeles Land Use Plan defines the assumptions that are represented in the AQMP.

The Project Site has a General Plan land use designation of High Density Residential under the Central City Community Plan. The Los Angeles Municipal Code (LAMC) establishes the zoning for the Project Site as [Q]R5-4D-O, for High Density Residential in Height District 4 with "Q" Qualified Conditions and a "D" Development Limitation, pursuant to Ordinance No. 164307-SA3030, within an Oil Drilling Overlay. Pursuant to LAMC Section 12.21 A.18, uses permitted in the C2 zone are permitted on lots zoned R5 within the Central City Community Plan area. Thus, hotel, restaurant, retail, and multi-family dwelling unit developments are permitted uses within the R5 Zone. The adaptive reuse and expansion of an existing 46,626-square-foot, 111-unit vacant Existing Hotel, and construction of a Hotel/Residential Tower would be consistent with the City's land use designation. Therefore, the Project would not exceed the AQMP assumptions for the Project Site and is found to be consistent with the AQMP for the second criterion.

As discussed in detail in **Section IV.I., Population and Housing,** of this Draft EIR, the Project would include 136 dwelling units, resulting in approximately 329 new residents. The new residents at the Project Site would account for approximately 0.4 percent of SCAG's estimated population growth in the City by 2022, and 0.06 percent of SCAG's estimated population growth in the City by 2040. As such, the direct Project-related population growth in the City would not be substantial and would be within SCAG's planning projections.

As shown in **Table IV.I-3** in **Section IV.I., Population and Housing,** of this Draft EIR, the Project would result in a net increase of 255 employees. Accordingly, the Project would account for 0.4 percent of SCAG's estimated increase of 63,409 jobs between 2018 and 2022[42] and for 0.08 percent of SCAG's estimated increase of 310,128 jobs between 2018 and 2040.[43] Additionally, these positions may be filled by persons already residing in the vicinity of the workplace and who generally do not relocate their households due to such employment opportunities.

Based on the above, the Project will not result in an inconsistency with the SCAQMD AQMP. Therefore, while the Project would increase housing and population totals in the City, the Project's growth rates would be consistent with SCAG's anticipated growth rate. It should also be noted that the Project would comply with all SCAQMD rules and regulations that are in effect at the time of development; the Applicant is not requesting any exemptions from the currently adopted or proposed SCAQMD rules. **Thus, the Project would not conflict with the 2016 AQMP and, as such, the Project would not conflict with or obstruct implementation of applicable air quality plans, and, therefore, the Project's impact on the AQMP would be less than significant.**

(b) City of Los Angeles General Plan Air Quality Element

The Air Quality Element of the City of Los Angeles General Plan sets forth goals, objectives, and policies that would guide the City in the implementation of its air quality improvement programs

[42] *255 employees generated by Project / 63,409 total jobs projected by SCAG = 0.4 percent.*
[43] *255 employees generated by Project / 310,128 total jobs projected by SCAG = 0.08 percent.*

and strategies. A detailed analysis of the consistency of the Project with relevant policies in the Air Quality Element is presented in **Table IV.A-6, Project Consistency with Applicable Policies of the General Plan Air Quality Element**.

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
Goal 1: Good air quality and mobility in an environment of continued population growth and health economic structure.	**No Conflict.** The Project would be consistent with 2016-2040 RTP/SCS goals and objectives under SB 375 to implement "smart growth." The Project would provide residential uses and employment opportunities in close proximity to existing job centers in the downtown Los Angeles area where people can live/work and have access to modes of transportation that reduce reliance on automobiles and minimize associated air pollutant emissions. The Project would meet the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code. The Project would also reduce VMT as a result of its urban center location, with access to public transportation within a quarter-mile of the Project Site, and its proximity to job centers, retail, recreational amenities and entertainment and as such, does not exceed any SCAQMD thresholds. As a result, the Project would support objectives to achieve good air quality, mobility and a healthy economic structure.
Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.	**No Conflict.** The Project's land use characteristics and compliance with regulatory requirements would reduce emissions associated with energy and transportation. As discussed under Threshold a), the Project would be consistent with the SCAG growth projections that are used in preparing the AQMP. The Project would occupy a location that is highly accessible by regional and local bus lines and Metro rail. As such, the Project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors and residents. The Project would provide residential uses within an Urban Center, which would allow people to live near work and recreational amenities.
Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	**No Conflict.** The Project would incorporate measures that would reduce particulate air pollutants from unpaved areas, parking lots, and construction sites. The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The Project would also comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust DPM emissions. Project construction would comply with the applicable

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
	provisions of the CARB In-Use Off-Road Diesel Vehicle Regulation, which aims to reduce emissions through the installation of DPM filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Project construction would also comply with the applicable provisions of the CARB Truck and Bus regulation to reduce PM and NO_X emissions from existing diesel trucks. The Project would also incorporate landscaped open spaces and trees.
Policy 1.3.1: Minimize particulate emissions from construction sites.	**No Conflict.** Construction activities associated with the Project would be required to comply with the provisions under SCAQMD Rule 403—Fugitive Dust, which would require appropriate dust control measures to be implemented during each phase of development. Consequently, particulate emissions at the Project Site during construction of the Project would be minimized. Therefore, the Project would be consistent with this policy.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.	**No Conflict.** Construction activities associated with the Project would be required to comply with the provisions under SCAQMD Rule 403—Fugitive Dust, which would require appropriate dust control measures to be implemented during each phase of development. These dust control measures include daily watering of unpaved areas and reducing vehicle speed on unpaved areas to less than 15 miles per hour. Therefore, the Project would be consistent with this policy.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**No Conflict.** The Project's land use characteristics (refer to the Project Description in this DEIR) would reduce trips and VMT due to its Regional Center location, with nearby access to public transportation within a quarter-mile of the Project Site and location in an area with access to multiple other destinations, including tourist attractions, job centers, and retail uses.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**No Conflict.** The Project includes residential apartments, commercial and restaurant uses located in close proximity to transit. The Project Site is within a Transit Priority Area. The Project Site is served by several bus lines. The Pico Station serving the Metro light rail Blue and Expo lines is less than 500 feet west of the Project Site on Flower Street north of Pico Boulevard. In addition, Metro runs multiple bus lines, including local and rapid lines, along Pico Boulevard with stops at Grand Avenue, Flower Street, and Figueroa Street. The proximity of the Project Site to these transit stops would provide employees and

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
	residents easy access to the new development on the Project Site. Bicycle parking would be provided on the ground floor of the building and would accommodate 215 spaces.
Policy 2.1.1: Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**No Conflict.** The Project includes residential apartments, commercial and restaurant uses located in close proximity to transit. The Pico Station serving the Metro light rail Blue and Expo lines is less than 500 feet west of the Project Site on Flower Street north of Pico Boulevard. In addition, Metro runs multiple bus lines, including local and rapid lines, along Pico Boulevard with stops at Grand Avenue, Flower Street, and Figueroa Street. The proximity of the Project Site to these transit stops would provide employees and residents easy access to the new development on the Project Site. In addition, the Project would provide on-site short-term and long-term bicycle parking spaces. In addition, the Project will have 30 percent of the required parking spaces be electric-vehicle ready and 10 percent of the required parking spaces would have chargers for electric vehicles within the parking structure. Therefore, the Project would be consistent with this Policy.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single-passenger vehicles, and incentives for high occupancy vehicles.	**No Conflict.** The Project would meet California Green Building Standards Code and the City of Los Angeles Green Building Code standards by designating 30 percent of the required parking spaces be electric-vehicle ready and 10 percent of the required parking spaces would have chargers for electric vehicles within the parking structure. In addition, the Project's location would encourage nonautomotive transportation to and from the Project Site. As discussed previously, the Project would be located within a quarter-mile public transportation, including local and rapid lines, along Pico Boulevard with stops at Grand Avenue, Flower Street, and Figueroa Street. The Project would provide bicycle parking and pedestrian pathways for building residents, employees, and visitors.
Goal 4: Minimal impact of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.	**No Conflict.** The Project's characteristics would reduce trips and VMT due to its Urban Center location, access to public transportation within a quarter-mile of the Project Site, close proximity to multiple other destinations including job centers and retail uses, its mix of residential, retail, and restaurant uses, and is pedestrian and bicycle-friendly.
Objective 4.1: It is the objective of the City of Los Angeles to include the regional attainment of	**No Conflict.** The Project analysis of potential air quality impacts relies upon the numeric indicators

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
ambient air quality standards as a primary consideration in land use planning	of significance adopted by the SCAQMD, which considers attainment of the ambient air quality standards. The Project impacts would be less than significant and would not cause or contribute to an exceedance of the ambient air quality standards.
Policy 4.1.2: Ensure that project level review and approval of land use development remain at the local level.	**No Conflict.** The Project environmental review would occur at the local level. Therefore, the Project would be consistent with this Policy.
Objective 4.2: It is the objective of the City of Los Angeles to reduce vehicle trips and VMT associated with land use patterns.	**No Conflict.** The Project's location and land use characteristics would reduce trips and VMT due to its regional center location, access to public transportation within a quarter-mile of the Project Site, and proximity to existing employment and commercial destinations, as would its mix of residential, commercial, and restaurant uses on-site, and pedestrian- and bicycle-friendly features.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers, and other establishments.	**No Conflict.** The Project includes the redevelopment of an underutilized site in the Central City community and would provide a wide variety of compatible and complementary land uses. The Project Site is within a Transit Priority Area. Metro, LADOT, Santa Monica Big Blue Bus, and the Orange County Transit Authority run multiple bus lines, including local and rapid lines, along Pico Boulevard, Broadway, Hill Street, Grand Avenue, Olive Street, and Main Street. The Metro Light Rail Pico Station, a major transit stop, is located approximately 0.1-mile to the northwest of the Project Site. This station provides access to the Metro A Line (Blue) and E Line (Expo). The A Line (Blue) runs north-south providing service from downtown Los Angeles to Long Beach. The Metro E Line (Expo) runs east-west providing service from Downtown Los Angeles to Santa Monica. The proximity of the Project Site to these transit stops would provide employees and residents easy access to the new development on the Project Site. Therefore, the Project would be consistent with this policy.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**No Conflict.** The Project would involve the demolition of the approximately 32,550 square feet of existing commercial industrial buildings, the adaptive reuse of an existing but vacant 46,626 square-foot SRO hotel, the expansion of an existing 46,626-square-foot, 111-unit SRO Existing Hotel, and construction of a Hotel/Residential Tower. Pedestrian access to the Project's various components would be provided by new entry points on Pico Boulevard and Hope Street through a central courtyard and open ground-floor commercial uses. The pedestrian experience will

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
	be enhanced by providing street-oriented uses, such as restaurants, gallery and museum space, and creating a transparent ground floor with a landscaped courtyard and pedestrian connections. Metro, LADOT, Santa Monica Big Blue Bus, and the Orange County Transit Authority run multiple bus lines, including local and rapid lines, along Pico Boulevard, Broadway, Hill Street, Grand Avenue, Olive Street, and Main Street. The Metro Light Rail Pico Station, a major transit stop, is located approximately 0.1-mile to the northwest of the Project Site. This station provides access to the Metro A Line (Blue) and E Line (Expo). The A Line (Blue) runs north-south providing service from downtown Los Angeles to Long Beach. The Metro E Line (Expo) runs east-west providing service from Downtown Los Angeles to Santa Monica. In addition, the Project would provide pedestrian-oriented design with ground floor lobby entrances, gallery/loggia space, outdoor dining area, and open space and recreation facilities for tenants and guests. The Project promotes active transportation with the provision of long term bicycle stalls/storage in the basement level B1 and short-term bicycle stalls located on the ground floor (with access from the guest lobby or hotel valet area), widened and improved sidewalks, and vehicular access limited to one driveway on Hope Street to create safe separation between vehicles and pedestrians Therefore, the Project would be consistent with this policy
Policy 4.2.4: Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**No Conflict.** The air quality analysis conducted for the Project in this EIR serves to identify potential air quality impacts. The analysis in this EIR will be used by the City's decision makers in the review and approval process for the Project. Therefore, the Project would be consistent with this policy.
Objective 5.1: It is the objective of the City of Los Angeles to increase energy-efficiency of City facilities and private developments.	**No Conflict.** As noted above, the Project would be designed and operated to meet the applicable requirements of the State of California Green Building Standards Code, and the City of Los Angeles Green Building Code.
Policy 5.1.2: Effect a reduction in energy consumption and shift to nonpolluting sources of energy in its buildings and operations.	**No Conflict.** As noted above, the Project would be designed and operated to meet the applicable requirements of the State of California Green Building Standards Code, and the City of Los Angeles Green Building Code. The Project will have 30 percent of the required parking spaces be electric-vehicle ready and 10 percent of the required parking spaces would have chargers for electric vehicles within the parking structure.

Table IV.A-6
Project Consistency with Applicable Policies of the General Plan Air Quality Element

Policy	Consistency Analysis
	Therefore, the Project would be consistent with this Policy.
Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**No Conflict.** The Project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. Municipal solid waste would be collected by haulers that comply with City and state waste diversion (specifically AB 1327 and AB 341) requirements, which may include mixed waste processing that yields diversion results comparable to source separation. Therefore, the Project would be consistent with this policy.
Objective 5.3: It is the objective of the City of Los Angeles to reduce the use of polluting fuels in stationary sources.	**No Conflict.** As noted above, the Project would be designed and operated to meet the applicable requirements of the State of California Green Building Standards Code and the City of Los Angeles Green Building Code.
Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels	**No Conflict.** As noted above, the Project would be designed and operated to meet the applicable requirements of the State of California Green Building Standards Code, and the City of Los Angeles Green Building Code. The Project will have 30 percent of the required parking spaces be electric-vehicle ready and 10 percent of the required parking spaces would have chargers for electric vehicles within the parking structure. Therefore, the Project would be consistent with this objective.
Source: City of Los Angeles, General Plan Air Quality Element, adopted November 1992.	

The Project would be consistent with the goals, objectives, and policies set forth in the City's General Plan Air Quality Element, as it would be generally consistent with the applicable air quality policies discussed above. **Therefore, Project would not conflict with the 2016 AQMP or the City of Los Angeles General Plan Air Quality Element and, as such, the Project would not conflict with or obstruct implementation of applicable air quality plans, and this impact would be less than significant.**

(2) Mitigation Measures

The Project would not result in significant Project-level air quality impacts and would not conflict with or obstruct implementation of applicable air quality plans. Therefore, no mitigation measures are recommended.

(3) Level of Significance After Mitigation

Project-level impacts related to conflicting with or obstructing implementation of applicable air quality plans would be less than significant.

Threshold b) Would the project 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?

(1) Impact Analysis

The Air Basin is currently in non-attainment for ozone (NAAQS and CAAQS), PM_{10} (CAAQS), $PM_{2.5}$ (NAAQS and CAAQS) and Lead (NAAQS). The SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds also be considered cumulatively considerable.[44] Therefore, the daily construction and operational emissions of NO_x (a precursor to O_3), PM_{10}, and $PM_{2.5}$ for the Project have been estimated utilizing the California Emissions Estimator Model (CalEEMod 2016.3.2), as recommended by the SCAQMD and presented below. The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions. Project-related exceedance of an applicable SCAQMD threshold(s) with regard to construction or operational emissions is considered to be cumulatively considerable.

(a) Construction

Construction activities associated with the Project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the Project were obtained from the project applicant. The construction activities for the Project are anticipated to include:partial demolition of the Existing Hotel, demolition of three, existing, commercial industrial buildings and surface parking lot totaling 42,011 square feet (SF) grading of approximately 1.253 net acres, improvements/reuse of an existing 46,626 SF hotel, construction of a 15-story hotel expansion and a 25-story new hotel and residential tower and a three level subterranean parking structure with an elevator, and application of architectural coatings. As noted above, if the City permits the 86 percent parking reduction, one subterranean parking level with elevator would be constructed instead of three levels, which would reduce the grading phase and associated emissions.

The Site area is 1.253 acres. The building footprint is estimated to be approximately 1.18 acres. The 156,301 SF residential tower will contain 136 apartments. The entire 230,011 SF hotel area will contain 444 rooms. The balance of the Site will consist of a 9,848 SF high-turnover restaurant, 13,052 SF of rooftop/quality restaurant/lounge, and 11,091 SF of immersive museum use.[45] The

[44] *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.*

[45] *Immersive museum conservatively modeled as a movie theater use in CalEEMod.*

grading phase is to include approximately 130,000 cubic yards of export, which would be decreased by approximately 43,333 cubic yards if the 86 percent parking reduction is permitted by the City. The Project is anticipated to start demo/excavation no sooner than February 2021 and be completed by late 2023. The Project will be operational in 2024.

These construction activities would temporarily create emissions of dusts, fumes, equipment exhaust, and other air contaminants. Construction activities involving demolition and grading would primarily generate $PM_{2.5}$ and PM_{10} emissions.

The Project also will be required to comply with SCAQMD Rule 1113 as amended on June 3, 2011. Under this Rule, the VOC content of architectural coatings applied to buildings after January 1, 2014 must be limited to an average of 50 grams per liter or less.

Mobile sources (such as diesel-fueled equipment onsite and traveling to and from the Project Site) would primarily generate NO_x 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. Please see the CalEEMod Output in **Appendix B** of this Draft EIR for details on construction (equipment, worker trips and haul trips etc.).

(a) Regional Air Quality Impacts from Construction

The construction-related, maximum daily criteria pollutant emissions for each phase are shown below in **Table IV.A-7, Construction-Related Regional Pollutant Emissions**. **Table IV.A-7** shows that none of the Project 's emissions will exceed regional thresholds. **Therefore, a less than significant regional air quality impact would occur from construction of the Project. No mitigation measures are required.**

Table IV.A-7
Construction-Related Regional Pollutant Emissions

Activity		Pollutant Emissions (pounds/day)					
		ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	On-Site[a]	1.99	19.70	14.49	0.02	1.41	1.03
	Off-Site[b]	0.11	1.58	0.90	0.01	0.26	0.07
	Subtotal	2.11	21.27	15.39	0.03	1.67	1.10
Site Preparation	On-Site[a]	1.56	17.42	7.56	0.02	2.85	1.84
	Off-Site[b]	0.04	0.03	0.32	0.00	0.09	0.02
	Subtotal	1.59	17.45	7.88	0.02	2.94	1.86
Grading	On-Site[a]	1.29	14.33	6.33	0.01	2.46	1.56
	Off-Site[b]	1.88	56.32	14.58	0.17	4.32	1.31
	Subtotal	3.17	70.66	20.91	0.19	6.78	2.87
Building Construction	On-Site[a]	1.81	13.64	12.90	0.02	0.68	0.66
	Off-Site[b]	1.45	8.10	12.13	0.05	3.36	0.93
	Subtotal	3.26	21.73	25.03	0.07	4.04	1.59
Paving	On-Site[a]	0.64	6.24	8.80	0.01	0.31	0.28

Table IV.A-7
Construction-Related Regional Pollutant Emissions

Activity		Pollutant Emissions (pounds/day)					
		ROG	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
	Off-Site[b]	0.05	0.03	0.44	0.00	0.15	0.04
	Subtotal	0.70	6.27	9.25	0.01	0.45	0.32
Architectural Coating	On-Site[a]	44.82	1.30	1.81	0.00	0.07	0.07
	Off-Site[b]	0.22	0.14	1.75	0.01	0.57	0.16
	Subtotal	45.03	1.44	3.56	0.01	0.65	0.23
Maximum Unmitigated Construction Emissions for Overlapping Phases[c]		49.00	29.44	37.83	0.09	5.14	2.14
SCAQMD Thresholds		75	100	550	150	150	55
Exceeds Thresholds?		No	No	No	No	No	No

[a] *On-site emissions from equipment operated on-site that is not operated on public roads. On-site grading and site preparation PM-10 and PM-2.5 emissions show mitigated values for fugitive dust for compliance with SCAQMD Rule 403.*
[b] *Off-site emissions from equipment operated on public roads.*
[c] *Construction, painting and paving phases may overlap.*
Source: CalEEMod Version 2016.3.2.

(b) Operation

The on-going operation of the Project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the Project-generated vehicle trips and through operational emissions from the on-going use of the Project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the ongoing operations of the Project.

(i) Operations-Related Regional Air Quality Impacts

The potential operations-related maximum daily emissions have been analyzed below for the criteria pollutants and cumulative impacts. The worst-case summer or winter criteria pollutant emissions created from the Project's long-term operations have been calculated and are shown below in **Table IV.A-8, Regional Operational Pollutant Emissions**. The results show that none of the SCAQMD regional thresholds would be exceeded. **Therefore, a less than significant regional air quality impact would occur from operation of the Project. No mitigation measures are required.**

Table IV.A-8
Regional Operational Pollutant Emissions[1]

Activity	Pollutant Emissions (pounds/day)					
	ROG	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources[a]	9.55	2.16	12.15	0.01	0.23	0.23
Energy Usage[b]	0.36	3.27	2.62	0.02	0.25	0.25
Mobile Sources[c]	7.46	31.38	86.08	0.33	27.68	7.57
Stationary[d]	0.00	0.00	0.00	0.00	0.00	0.00
Total Maximum Emissions	**17.38**	**36.81**	**100.85**	**0.36**	**28.15**	**8.04**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

[a] *Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.*
[b] *Energy usage consists of emissions from generation of electricity and on-site natural gas usage.*
[c] *Mobile sources consist of emissions from vehicles and road dust.*
[d] *Stationary sources consist of emissions from the emergency generator.*
Source: CalEEMod Version 2016.3.2; the higher of either summer or winter emissions.

As shown in **Table IV.A-8**, the operational emissions generated by the Project would not exceed the regional thresholds of significance set by the SCAQMD.

As shown below, under threshold (c), Project-related localized construction and operational emissions would not exceed localized thresholds.

According to the SCAQMD, individual projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. **Therefore, the Project's contribution to regional and local emissions would not be cumulatively considerable and, thus, would be less than significant.**

(2) Mitigation Measures

The Project would not 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. Therefore, no mitigation measures are required.

(3) Level of Significance After Mitigation

The Project would not 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. Impacts are less than significant.

Threshold c) Would the project have a significant impact if it were to expose sensitive receptors to substantial pollutant concentrations?

(1) Construction Impact Analysis

(a) Local Air Quality Impacts from Construction

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The Project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts.

The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011b). CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold (LST) lookup tables, the CEQA document should contain the following parameters:

1. The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2. The maximum number of acres disturbed on the peak day.
3. Any emission control devices added onto off-road equipment.
4. Specific dust suppression techniques used on the day of construction activity with maximum emissions.

The CalEEMod output in **Appendix B** show the equipment used for this analysis.

As shown in **Table IV.A-9, Maximum Number of Acres Disturbed Per Day**, the maximum number of acres disturbed in a day would be 2 acres during demolition. The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold Methodology prepared by SCAQMD (revised July 2008). The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the Project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the Central Los Angeles source receptor area (SRA) 1 and a disturbance value of two acres per day.

Table IV.A-9
Maximum Number of Acres Disturbed Per Day

Activity	Equipment	Number	Acres/8hr-day	Total Acres
Demolition	Rubber Tired Dozers	1	0.5	0.5
	Crawler Tractors	3	0.5	1.5
Total for phase		-	-	**2**
Site Preparation	Rubber Tired Dozers	1	0.5	0.5
	Graders	1	0.5	0.5
	Crawler Tractors	1	0.5	0.5
Total for phase		-	-	**1.5**
Grading	Rubber Tired Dozers	1	0.5	0.5
	Graders	1	0.5	0.5
	Crawler Tractors	1	0.5	0.5
Total for phase		-	-	**1.5**

Source: South Coast AQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2011b.

According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds. The nearest sensitive receptors to the Project Site include: the residential portions of the mixed-use land uses located approximately 20 feet to the east (E on Grand), 50 feet to the south (Onyx, directly across West Pico Boulevard), and approximately 50 feet to the west (Hope and Flower, across South Hope Street); therefore, the SCAQMD Look-up Tables for 25 meters was used. **Table IV.A-10, Local Construction Emissions at the Nearest Receptors** shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds.

The data provided in **Table IV.A-10,** shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors, and grading emissions would be further reduced under the 86 percent parking reduction option. **Therefore, a less than significant local air quality impact would occur from construction of the Project. No mitigation measures are required.**

Table IV.A-10
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Demolition	19.70	14.49	1.41	1.03
Site Preparation	17.45	7.88	2.94	1.86
Grading	14.33	6.33	2.46	1.56
Building Construction	13.64	12.90	0.68	0.66
Paving	6.24	8.80	0.31	0.28
Architectural Coating	1.30	1.81	0.07	0.07
SCAQMD Thresholds[a]	**19.70**	**14.49**	**1.41**	**1.03**
Exceeds Threshold?	No	No	No	No

[a] *The nearest sensitive receptors to the project include the residential portions of the mixed-use land uses located approximately 20 feet (~6 meters) to the east (E on Grand) and 50 feet (~15 meters) to the south on (Onyx, directly across West Pico Boulevard) ; therefore, the 25 meter threshold was used.*
Note: The Project will disturb up to a maximum of 2 acres a day during demolition (see Table IV.A-8).
Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres at a distance of 25 m in SRA 1 Central Los Angeles.

(b) Toxic Air Contaminants

With respect to TACs, the greatest potential for TAC emissions resulting from construction of the Project would involve diesel particulate emissions associated with trucks and heavy equipment. Based on SCAQMD guidance, health effects from TACs are usually described in terms of individual cancer risk, which is the likelihood that a person exposed to TACs over a 70-year lifetime will contract cancer. Project construction activity would not result in long-term substantial sources of TAC emissions (i.e., 30 or 70 years) and would not generate ongoing construction TAC emissions. Given the temporary and short-term construction schedule (approximately 36 months), the Project would not result in a long-term (i.e., lifetime or 70-year) exposure as a result of Project construction. Furthermore, as shown above in **Table IV.A-10**, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds, which would be further reduced under the 86 percent parking reduction option.

In addition, the construction activities associated with the Project would be similar to other development projects in the City, and would be subject to the regulations and laws relating to toxic air pollutants at the regional, State, and Federal level that would protect sensitive receptors from substantial concentrations of these emissions. The Project would be consistent with applicable AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. The Project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The Project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the demolition activities. **Thus, TAC emissions from construction of the Project would be less than significant.**

(2) Operational Impact Analysis

(a) Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The Project has been analyzed for the potential local CO emission impacts from the Project -generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis analyzes the vehicular CO emissions, local impacts from onsite operations per LST methodology, and odor impacts.

(i) Localized Carbon Monoxide Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with Project CO levels to the State and federal CO standards which were presented above.

To determine if the Project could cause emission levels in excess of the CO standards discussed above, a sensitivity analysis is typically conducted to determine the potential for CO “hot spots” at a number of intersections in the general Project vicinity. Because of reduced speeds and vehicle queuing, “hot spots” potentially can occur at high traffic volume intersections with a Level of Service E or worse.

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region’s unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles Department of Transportation (LADOT) evaluated the Level of Service in the vicinity of the

Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour.

The Traffic Study showed that the Project would generate a maximum of approximately 5,603 daily vehicle trips. The intersection with the highest traffic volume is located at the intersection of Grand Avenue and 12th Street and has a Future (2024) with Project evening peak hour volume of 1,917 vehicles. The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. **Therefore, as the highest traffic volumes at this intersection would fall short of 100,000 vehicles, no CO "hot spot" modeling was performed and no significant impact is anticipated to local air quality with the ongoing operation of the Project. No mitigation measures are required.**

(ii) Local Air Quality Impacts from On-Site Operations

The Project would consist of the development of residential apartments, commercial, and restaurant land uses, and would not include any industrial or other land uses involving the use, storage, or processing of carcinogenic or non-carcinogenic toxic chemicals or air contaminants, or the generation of high levels of diesel truck activity.

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptors to the Project Site include: the residential portions of the mixed-use land uses located approximately 20 feet to the east (E on Grand), 50 feet to the south (Onyx, directly across West Pico Boulevard), and approximately 50 feet to the west (Hope and Flower, across South Hope Street).

The local air quality emissions from on-site operations were analyzed according to the methodology described in *Localized Significance Threshold Methodology*, prepared by SCAQMD, revised July 2008. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Per SCAQMD staff, the 5-acre Look-up Table, which is the largest site available, can be used as a conservative screening analysis for on-site operational emissions to determine whether more-detailed dispersion modeling would be necessary. However, as the site is less than 2 acres, the 2 acre thresholds were used. The proposed project was analyzed based on the Central LA source receptor area (SRA) 1 and used the thresholds for a two-acre project site.

Table IV.A-11, Local Operational Emissions at the Nearest Receptors shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, emergency back-up generator, and vehicles operating on-site and the SCAQMD LST

emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to less than 10 percent of the project-related new mobile sources.[46]

Table IV.A-11
Local Operational Emissions at the Nearest Receptors

	On-Site Pollutant Emissions (pounds/day)			
On-Site Emission Source	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Sources[2]	2.16	12.15	0.23	0.23
Energy Usage[3]	3.27	2.62	0.25	0.25
Vehicle Emissions[4]	0.63	1.72	0.55	0.15
Stationary[5]	0.00	0.00	0.00	0.00
Total Emissions	**6.06**	**16.49**	**1.03**	**0.63**
SCAQMD Thresholds[6]	**108**	**1,048**	**2**	**2**
Exceeds Threshold?	No	No	No	No

Notes:

1 *Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres in SRA 1.*

2 *Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.*

3 *Energy usage consists of emissions from on-site natural gas usage.*

4 *On-site vehicular emissions based on 1/50 of the gross vehicular emissions and road dust.*

5 *Stationary sources consist of emissions from the emergency generator.*

6 *Closest receptors are residential portions of the mixed-use land uses located approximately 20 feet to the east (E on Grand), 50 feet to the south (Onyx, directly across West Pico Boulevard), and approximately 50 feet to the west (Hope and Flower, across South Hope Street); therefore, to be conservative, the 25 meter threshold was used.*

The data provided in **Table IV.A-11** shows that the on-going unmitigated operations of the proposed project would not exceed SCAQMD local operational thresholds of significance. Therefore, the on-going operations of the proposed Project would create a less than significant operations-related impact to local air quality due to on-site emissions.

The SCAQMD recommends that operational health risk assessments be conducted for substantial sources of operational DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[47] Project operations would generate only minor amounts of diesel emissions from mobile sources, such as delivery trucks and occasional maintenance activities. Furthermore, Project trucks are required to comply with the applicable provisions of the CARB 13 CCR, Section 2025 (Truck and Bus regulation) to minimize and reduce PM and NOx emissions from existing diesel trucks.

[46] *The project site is approximately 0.07 miles in length at its longest point; therefore the on-site mobile source emissions represent approximately 1/98 of the shortest CalEEMod default distance of 6.9 miles. Therefore, to be conservative, 1/50th the distance (dividing the mobile source emissions by 50) was used to represent the portion of the overall mobile source emissions that would occur on-site.*

[47] *http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.*

Therefore, the Project operations would not be considered a substantial source of diesel particulates.

In addition, Project operations would only result in minimal emissions of air toxics from maintenance or other ongoing activities, such as from the use of architectural coatings and other products. Area sources that would generate TAC emissions include charbroiling activities associated with the restaurant uses and consumer products associated with re-applying architectural coatings and cleaning building surfaces. Charbroiling has the potential to generate small amounts of chemicals that are known or suspected by the State of California to cause human health impacts. However, restaurants incorporating charbroiling in the Air Basin would be required to comply with SCAQMD Rule 1138 (Control of Emissions from Restaurant Operations), which requires the installation of emissions controls on charbroilers.

With respect to the use of consumer products and architectural coatings, the residential and retail uses associated with the Project would be expected to generate minimal emissions from these sources. The Project's land uses would not include installation of industrial-sized paint booths or require extensive use of commercial or household cleaning products. As a result, toxic or carcinogenic air pollutants are not expected to occur in any substantial amounts in conjunction with operation of the proposed land uses within the Project Site. Based on the uses expected on the Project Site, potential long-term operational impacts associated with the release of TACs would be minimal, regulated, and controlled, and would not be expected to exceed the SCAQMD numerical indicator of significance.

Therefore, impacts to sensitive receptors associated with the release of TACs from the Project would be less than significant.

(3) Mitigation Measures

The Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, no mitigation measures are required.

(4) Level of Significance After Mitigation

The Project would not expose sensitive receptors to substantial pollutant concentrations. Impacts are less than significant.

Threshold d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

As discussed previously in the Initial Study (see **Appendix A** to this Draft EIR), the Project would have no impact with respect to Threshold (d).

Furthermore, according to the SCAQMD *CEQA Air Quality Handbook*, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. As the Project would not include operational elements related to industrial projects, no long-term operational objectionable odors are anticipated. **Therefore, potential**

impacts associated with objectionable odors would be less than significant. No mitigation measures are required.

e) Cumulative Impacts

The following cumulative impacts analysis is based on the recommendations included in SCAQMD's CEQA Air Quality Handbook. According to SCAQMD, individual projects that exceed SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment.

As identified in **Section III, Environmental Setting**, of this Draft EIR, a total of 172 related projects are located in the vicinity of the Project Site. A map of the related project locations is provided in **Figure III-5, Location of Related Projects** in **Section III, Environmental Setting**, of this Draft EIR.

(1) Impact Analysis

(a) Construction

As discussed under the thresholds above, the Project's construction-related air quality emissions and cumulative impacts would be less than significant. The Project would comply with regulatory requirements. Furthermore, construction-related daily emissions at the Project Site would not exceed any of SCAQMD's regional or localized significance thresholds including NO_X, CO, PM_{10} and $PM_{2.5}$. **Therefore, the contribution of the Project to cumulative air quality impacts from construction emissions would not be cumulatively considerable and, therefore, would be less than significant.**

The greatest potential for TAC emissions at each related project would generally involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. 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 exposed to concentrations of TACs over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. Construction activities are temporary and short-term events, thus construction activities at each related project would not result in a long-term substantial source of TAC emissions. Additionally, SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information do not require an HRA for short-term construction emissions. It is, therefore, not required or meaningful to evaluate long-term cancer impacts from construction activities which occur over relatively short durations. **As such, given the short-term nature of these activities, cumulative toxic emission impacts of the Project during construction would be less than significant.**

(b) Operation

Cumulative projects include local development as well as general growth within the Project area. However, as with most development, the greatest source of emissions is from mobile sources,

which travel well out of the local area and have the potential to create regional emission impacts. Therefore, from an air quality standpoint, the geographic scope of cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. Accordingly, consistent with the SCAQMD guidance described above the cumulative analysis for the Project 's air quality impacts is regional in nature.

The Project area is out of attainment for ozone and in 2018 was out of attainment for PM10 and PM2.5. Operation of cumulative projects will further degrade the local air quality, as well as the air quality of the Air Basin. The greatest cumulative impact on the quality of regional Basin will be the incremental addition of pollutants mainly from increased traffic volumes from residential, commercial, and industrial development. However, in accordance with the SCAQMD methodology, emissions from individual projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant.

Project operations would generate emissions of NOx, ROG, CO, PM_{10}, and $PM_{2.5}$ that would not exceed the SCAQMD regional or local thresholds.

Since the Project would not introduce any substantial stationary sources of emissions, CO is the benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. As indicated earlier, no violations of the state and federal CO standards are projected to occur for the Project, based on the magnitude of traffic the Project is anticipated to create. **Therefore, operation of the Project would not result in a cumulatively considerable net increase for nonattainment of criteria pollutants or ozone precursors. As a result, the Project would result in a less than significant cumulative impact for operational emissions.**

(2) Mitigation Measures

The Project would not result in significant cumulative air quality impacts. Therefore, no mitigation measures are recommended.

(3) Level of Significance After Mitigation

Cumulative impacts related to air quality from the Project would be less than significant.