IV. ENVIRONMENTAL IMPACT ANALYSIS
D. AIR QUALITY

1. INTRODUCTION

This section addresses the air emissions generated by the construction and operation (post-construction) of the proposed Project. The analysis also addresses the consistency of the proposed Project with the air quality policies set forth within the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan and the City of Los Angeles General Plan. The analysis of Project-generated air emissions focuses on whether the proposed Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold.

2. ENVIRONMENTAL SETTING

a. Regulatory Setting

A number of statutes, regulations, plans and policies have been adopted that address air quality issues. The proposed Project Site and vicinity are subject to air quality regulations developed and implemented at the federal, State, and local levels. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of the Federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source and other requirements) are implemented directly by the USEPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by State and local agencies.

(1) Authority for Current Air Quality Planning

A number of plans and policies have been adopted by various agencies that address air quality concerns. Those plans and policies that are relevant to the proposed Project are discussed below.

(a) Federal Clean Air Act

The CAA was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement the

State Implementation Plan (SIP) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. The City of Los Angeles is within the South Coast Air Basin (Basin), and as such is in an area designated a non-attainment area for certain pollutants that are regulated under the CAA.

The 1990 Amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which would most substantially affect the development of the proposed Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: (1) ozone (O_3); (2) nitrogen dioxide (NO_2); (3) sulfur dioxide (SO_2); (4) Particulate Matter (PM_{10}); (5) carbon monoxide (CO); and (6) lead (Pb). Table 10 on pages 193 and 194 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. The Basin fails to meet national standards for O_3 (for both the 1-hour and 8-hour standard), PM_{10}, and $PM_{2.5}$ and therefore is considered a Federal "non-attainment" area for these pollutants. The CAA sets certain deadlines for meeting the NAAQS within the Basin including: (1) 1-hour O_3 by the year 2010; (2) 8-hour O_3 by the year 2021; PM_{10} by the year 2006; and (3) $PM_{2.5}$ by the year 2015. Nonattainment designations are categorized into seven levels of severity: (1) basic, (2) marginal, (3) moderate, (4) serious, (5) severe-15, (6) severe-17,[28] and (7) extreme. Table 11 on page 195 lists the criteria pollutants and their relative attainment status.

(b) 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 California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and have set standards for other pollutants recognized by the State. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for $PM_{2.5}$, sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with the California standards for sulfates, hydrogen sulfide, and vinyl chloride, but does not meet the California standard for visibility. Table 10 details the current NAAQS and CAAQS, while Table 11 on page 195 provides the Basin's attainment status with respect to federal and State standards.

[28] *The "-15" and "-17" designations reflect the number of years within which attainment must be achieved.*

Table 10

AMBIENT AIR QUALITY STANDARDS[a]

Pollutant	Averaging Time	California Standard[b]	Federal Primary Standard[b]	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone (O_3)[c]	1 hour	0.09 ppm	0.12 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Motor vehicles.
	8 hours	—	0.08 ppm		
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Classified as a chemical asphyxiant, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	—	0.05 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.25 ppm			
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	—	0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm			
	24 hours	0.04 ppm	0.14 ppm		
Particulate Matter (PM_{10})	Annual Geometric Mean	20 $\mu g/m^3$	—	May irritate eyes and respiratory tract. Absorbs sunlight, reducing amount of solar energy reaching the earth. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 Hours	50 $\mu g/m^3$	150 $\mu g/m^3$		
	Annual Arithmetic Mean	—	50 $\mu g/m^3$		
Particulate Matter ($PM_{2.5}$)[d]	Annual Geometric Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, premature death; reduced visibility; surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).
	24 Hours	—	65 $\mu g/m^3$		

Table 10 (Continued)

AMBIENT AIR QUALITY STANDARDS[a]

Pollutant	Averaging Time	California Standard[b]	Federal Primary Standard[b]	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Lead	Monthly	1.5 ug/m^3	—	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction (in severe cases).	Lead smelters, battery manufacturing & recycling facilities.
	Quarterly	—	1.5 ug/m^3		
Sulfates (SO_4)	24 hours	25 ug/m^3	—	Decrease in ventilatory functions; aggravation of asthmatic symptoms; aggravation of cardio-pulmonary disease; vegetation damage; degradation of visibility; property damage.	Coal or oil burning power plants and industries, refineries, diesel engines.

[a] *Ambient air quality standards are set at levels which provide a reasonable margin of safety and protect the health of the most sensitive individual in the population.*

[b] *ppm = parts per million and $\mu g/m^3$ = micrograms per cubic meter.*

[c] *Ozone is formed when NO_X and ROC react in the presence of sunlight. There are no air quality standards for ROC. However, ROC is recognized as a pollutant of concern as it is a precursor to the formation of ozone.*

[d] *A Federal air quality standard for $PM_{2.5}$ was adopted in 1997. Presently, no methodologies for determining impacts relating to $PM_{2.5}$ have been developed. In addition, no strategies or mitigation programs for this pollutant have been developed or adopted by federal, state, or regional agencies.*

Source: California Air Resources Board, Ambient Air Quality Standards*, 2004 and the USEPA, 2004.*

(c) South Coast Air Quality Management District (SCAQMD)

The SCAQMD has jurisdiction over an area of approximately 10,743 square miles. This area includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a subregion of the SCAQMD jurisdiction. While air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

The SCAQMD has adopted a series of Air Quality Management Plans (AQMP) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources; control programs for area sources and indirect sources; a SCAQMD permitting system designed to allow no net increase in emissions from any new or

Table 11

SOUTH COAST AIR BASIN ATTAINMENT STATUS

Pollutant	National Standards	California Standards
Ozone (O_3) (1-hour standard)	Extreme	Non-attainment
Ozone (O_3) (8-hour standard)	Severe-17	N/A
Carbon Monoxide (CO)	Serious [a]	Non-attainment
Sulfur Dioxide (SO_2)	Attainment [b]	Attainment [b]
Nitrogen Dioxide (NO_2) [b]	Attainment [b]	Attainment
PM_{10}	Serious	Non-attainment
$PM_{2.5}$	Serious	Non-attainment
Lead (Pb)	Attainment [b]	Attainment [b]

N/A = not applicable

[a] *The Basin has technically met the CO standards for attainment since 2002, but the official status has not been reclassified by the USEPA.*

[b] *An air basin is designated as being in attainment for a pollutant if the standard for that pollutant was not violated at any site in that air basin during a three year period.*

Source: USEPA Region 9 and California Air Resources Board, 2004.

modified (i.e., previously permitted) emission sources; transportation control measures; sufficient control strategies to achieve a 5 percent or more annual reduction in emissions (or 15 percent or more in a 3-year period) for Reactive Organic Compounds (ROC), NO_X, CO, and PM_{10}; and demonstration of compliance with the California Air Resources Board's established reporting periods for compliance with air quality goals.

The SCAQMD adopted a comprehensive AQMP update, the 2003 Air Quality Management Plan for the South Coast Air Basin, on August 1, 2003.[29] The 2003 AQMP outlines the air pollution control measures needed to meet Federal health-based standards for O_3 (1-hour standard) by 2010 and PM_{10} by 2006. It also demonstrates how the Federal standard for CO, achieved for the first time at the end of 2002, will be maintained.[30] This revision to the AQMP also addresses several State and Federal planning requirements and incorporates substantial new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological data and new air quality modeling tools. The 2003 AQMP is consistent with and builds upon the approaches taken in the 1997 AQMP and the 1999 Amendments to the Ozone SIP for the South Coast Air Basin. Lastly, the plan takes a preliminary look at what will be needed to achieve new and more stringent health standards for ozone and $PM_{2.5}$.

[29] *South Coast Air Quality Management District, AQMD Website, www.aqmd.gov/news1/aqmp_adopt.htm.*

[30] *The Basin has technically met the CO standards since 2002, but the official attainment status has not been reclassified by the USEPA.*

In adopting the AQMP, the SCAQMD: (1) committed to analyzing 12 additional long-term control measures, such as requiring the electrification of all cranes at ports; (2) set a target for distributing needed long-term emission reductions between the SCAQMD, the California Air Resources Board (CARB), and the USEPA; (3) assigned emission reductions to the USEPA; and (4) forwarded to CARB and USEPA a list of more than 30 specific measures for consideration to further reduce emissions from on- and off-road mobile sources and consumer products. The AQMP identifies 26 air pollution control measures to be adopted by the SCAQMD to further reduce emissions from businesses, industry and paints. It also identifies 22 measures to be adopted by CARB and the USEPA to further reduce pollution from cars, trucks, construction equipment, aircraft, ships and consumer products.

The SCAQMD adopts rules and regulations to implement portions of the AQMP. Several of these rules may apply to construction or operation of the Project. For example, SCAQMD Rule 403 requires the implementation of best available fugitive dust control measures during active operations capable of generating fugitive dust emissions from onsite earth-moving activities, construction/ demolition activities, and construction equipment travel on paved and unpaved roads. SCAQMD Rule 403 is included in Appendix C of this Draft EIR.

The SCAQMD has published a handbook (*CEQA Air Quality Handbook*, November 1993) that is intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. In addition, the SCAQMD has published a guidance document (*Localized Significance Threshold Methodology for CEQA Evaluations*, June 2003) that is intended to provide guidance in evaluating localized effects from mass emissions during construction. This document was also used in the preparation of this analysis.

(d) Regional Comprehensive Plan and Guide

The Southern California Association of Governments (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 is the federally designated metropolitan planning organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *Regional Comprehensive Plan and Guide* (*RCPG*) for the SCAG region, which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation components of the AQMP and are utilized in the preparation of air quality forecasts and the consistency analysis that is included in the AQMP.

b. Existing Conditions

(1) Regional Context

The Project Site is located within the South Coast Air Basin (Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. Its terrain and geographical location determine this distinctive climate of the Basin, as the Basin is a coastal plain with connecting broad valleys and low hills.

The southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin making it an area of high pollution potential.

The greatest air pollution impacts throughout the Basin occur from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds and shallow vertical atmospheric mixing. This frequently reduces pollutant dispersion, thus causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California.

The SCAQMD has published a Basin-wide air toxics study (MATES II, *Multiple Air Toxics Exposure Study*, March 2000). The MATES II study represents one of the most comprehensive air toxics studies ever conducted in an urban environment. The study was aimed at determining the cancer risk from toxic air emissions throughout the Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Basin. The study concluded the average carcinogenic risk in the Basin is approximately 1,400 in one million. Mobile sources (e.g., cars, trucks, trains, ships, aircraft, etc.) represent the greatest contributors. Approximately 70 percent of all risk is attributed to diesel particulate emissions, approximately 20 percent to other toxics associated with mobile sources (including benzene, butadiene, and

formaldehyde), and approximately 10 percent of all carcinogenic risk is attributed to stationary sources (which include industries and other certain businesses, such as dry cleaners and chrome plating operations). The SCAQMD is in the process of updating the MATES II Study with a MATES III Study.

(2) Local Area Conditions

(a) Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the South Coast Air Basin and has divided the Basin into air monitoring areas. The Project Site is located in the Central Los Angeles County Monitoring Area. The monitoring station for this area is the North Main Street Monitoring Station, which is located at 1630 North Main Street in the City of Los Angeles, a few miles northwest of the Project Site. Criteria pollutants monitored at this station include PM_{10}, $PM_{2.5}$, O_3, CO, SO_2, and NO_2. The most recent data available from this monitoring station encompasses the years 1999 to 2003. The data, shown in Table 12 on pages 199 and 200, show the following pollutant trends:

Ozone—The maximum one-hour ozone concentration recorded during the reporting period was 0.15 ppm (2003). During the 1999 to 2003 reporting period, the California standard of 0.09 ppm was exceeded between eight and thirteen times annually. The National standard of 0.12 ppm was exceeded either zero or one time annually during the five-year reporting period, with the maximum number of exceedances occurring in 1999, 2000 and 2003. The maximum eight-hour ozone concentration recorded during the reporting period was 0.11 ppm in 1999. During the 1999 to 2003 reporting period, the National standard of 0.08 ppm was exceeded between zero and four times with the maximum number of exceedances occurring in 2000.

Particulate Matter (PM_{10})—The highest recorded concentration during the reporting period was 97 micrograms per cubic meter ($\mu g/m^3$) of air particulates (2001). During this reporting period, the California PM_{10} standard was calculated to be exceeded between 24 and 119 times annually, with the highest number of exceedances in 2001. No exceedances of the National standard occurred between 1999 and 2003. The highest annual arithmetic mean recorded was 44 $\mu g/m^3$ in 1999 and 2001. The highest annual geometric mean recorded was 42 $\mu g/m^3$ in 1999.

Particulate Matter ($PM_{2.5}$)—The highest recorded concentration during the reporting period was 88 $\mu g/m^3$ in 2000. During this reporting period the National standard was exceeded between 1 and 11 times annually. The highest annual arithmetic mean recorded was 23 in 1999 and 2001.

Table 12

POLLUTANT STANDARDS AND AMBIENT AIR QUALITY DATA FROM THE LOS ANGELES-NORTH MAIN STREET MONITORING STATION

Pollutant/Standard	1999	2000	2001	2002	2003
Ozone (O_3)					
O_3 (1-hour)					
Maximum Concentration (ppm)	0.13	0.14	0.12	0.12	0.15
Days > CAAQS (0.09 ppm)	13	8	8	8	11
Days > NAAQS (0.12 ppm)	1	1	0	0	1
O_3 (8-hour)					
Maximum Concentration (ppm)	0.11	0.10	0.10	0.08	0.09
Days > NAAQS (0.08 ppm)	2	4	1	0	2
Particulate Matter (PM_{10})					
PM_{10} (24-hour)					
Maximum Concentration ($\mu g/m^3$)	88	80	97	57	81
Days > CAAQS (50 $\mu g/m^3$)	114	90	119	48	24
Days > NAAQS (150 $\mu g/m^3$)	0	0	0	0	0
PM_{10} (Annual Average)					
Annual Arithmetic Mean (50 $\mu g/m^3$)	44	40	44	36	N/A
Annual Geometric Mean (20 $\mu g/m^3$)	42	37	40	37	N/A
Particulate Matter ($PM_{2.5}$)					
$PM_{2.5}$ (24-hour)					
Maximum Concentration ($\mu g/m^3$)	69	88	73	66	70
Days > NAAQS (65 $\mu g/m^3$)	2	11	4	1	2
$PM_{2.5}$ (Annual Average)					
Annual Geometric Mean (12 $\mu g/m^3$)	23	22	23	20	N/A
Carbon Monoxide (CO)					
CO (1-hour)					
Maximum Concentration (ppm)	7	7	6	N/A	N/A
Days > CAAQS (20 ppm)	0	0	0	N/A	N/A
Days > NAAQS (35 ppm)	0	0	0	N/A	N/A
CO (8-hour)					
Maximum Concentration (ppm)	6.3	6.0	4.6	3.8	4.5
Days > CAAQS (9.0 ppm)	0	0	0	0	0
Days > NAAQS (9 ppm)	0	0	0	0	0

Table 12 (Continued)

POLLUTANT STANDARDS AND AMBIENT AIR QUALITY DATA FROM THE LOS ANGELES-NORTH MAIN STREET MONITORING STATION

Pollutant/Standard	1999	2000	2001	2002	2003
Nitrogen Dioxide (NO_2)					
NO_2 (1-hour – State Standard)					
Maximum Concentration (ppm)	0.21	0.16	0.14	0.14	0.16
Days > CAAQS (0.25 ppm)	0	0	0	0	0
NO_2 (Annual Average – National Standard))					
Annual Arithmetic Mean (0.05 ppm)	0.04	0.04	0.04	0.03	0.03
Days > NAAQS (0.05 ppm)	0	0	0	0	0
Sulfur Dioxide (SO_2)					
SO_2 (1-hour)					
Maximum Concentration (ppm)	0.05	0.08	0.08	N/A	N/A
Days > CAAQS (0.25 ppm)	0	0	0	N/A	N/A
SO_2 (24-hour)					
Maximum Concentration (ppm)	0.01	0.01	0.01	0.01	0.01
Days > CAAQS (0.04 ppm)	0	0	0	0	0
Days > NAAQS (0.14 ppm)	0	0	0	0	0
SO_2 (Annual Average)					
Annual Arithmetic Mean	0.002	0.001	0.001	0.002	0.002
Days > NAAQS (0.03 ppm)	0	0	0	0	0

Ambient data for airborne lead is not included in this table since the Basin is currently in compliance with state and national standards for lead.

ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; N/A = not available

Source: South Coast Air Quality Management District, Air Quality Data 1999-2003 and California Air Resources Board, Air Quality Data 2004.

Carbon Monoxide—The highest recorded 1-hour CO and 8-hour CO concentrations were 7 ppm (1999 and 2000) and 6.3 ppm (1999), respectively. Neither the California nor National CO standards were exceeded during the reporting period.

Nitrogen Dioxide—The highest recorded one-hour concentration of NO_2 during the reporting period was 0.21 ppm (1999) and the highest recorded annual arithmetic mean during the reporting period was 0.04 (1999–2001). Neither the California nor National NO_2 standards were exceeded during the reporting period.

Sulfur Dioxide—The highest recorded one-hour and 24-hour SO_2 concentrations were 0.08 ppm (2000–2001) and 0.01 ppm (1999–2003), respectively. In addition, the highest annual average recorded was 0.002 in 1999, 2002, and 2003. No violations of the California or National SO_2 standards were recorded during this reporting period.

Lead—The Basin is currently in compliance with California and National standards for Pb and, therefore, no ambient data for airborne Pb is available for the applicable monitoring station.

(b) Existing Health Risk in the Surrounding Area

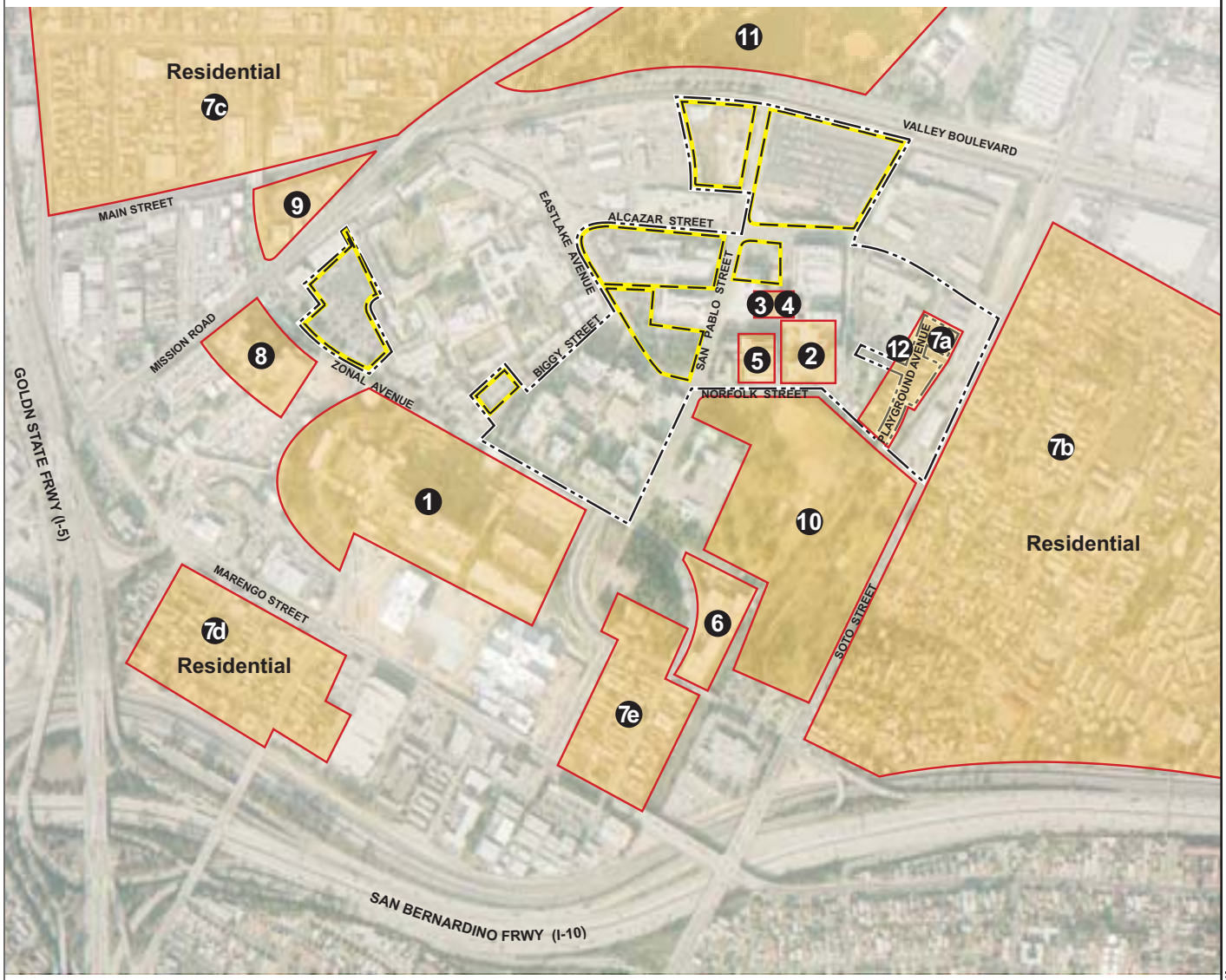
According to the SCAQMD's MATES II study, the Project area is within a cancer risk zone of approximately 1,500 in one million, which is largely due to diesel particulates generated from the convergence of freeways surrounding the downtown Los Angeles area. In comparison, the average cancer risk in the Basin is 1,400 per million.

(c) Sensitive Receptors and Locations

Some population groups, such as children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive land uses in the Project vicinity are shown in Figure 23 on page 202, and include the following:

- LA County–USC Hospital. This hospital/trauma center is located approximately 500 feet southeast of Development Site C, on the south side of Zonal Avenue at Biggy Street. All other Development Sites are located approximately 600 feet (Development Site D) to 2,525 feet (Development Site E) from the LA County–USC Hospital.

- USC University Hospital. The USC University Hospital is located south and/or east of the seven proposed Development Sites. Development Site B is located approximately 500 feet northwest of the hospital. All other Development Sites are



LEGEND

Sensitive Receptors

1. LA County/USC Hospital
2. USC University Hospital
3. USC Healthcare Consultation Center
4. USC Healthcare Consultation Center II
5. Doheny Eye Institute
6. Francisco Bravo Institute M.D. Magnet Senior High School
7a. Residential Neighborhoods
7b. Residential Neighborhoods
7c. Residential Neighborhoods
7d. Residential Neighborhoods
7e. Residential Neighborhoods
8. Woman and Children's Hospital
9. Nurse College
10. Hazard Park
11. Lincoln Park
12. Children's Daycare Center

Development Sites

Project Boundary

Figure 23
Sensitive Receptor Locations

PCR

Source: Aerial: Landiscore; PCR Services Corporation, 2004

located approximately 825 feet (Development Site E) to 2,600 feet (Development Site C) from the USC University Hospital.

- USC Healthcare Consultation Center (HCC). The USC HCC is located south and/or east of the seven proposed Development Sites. Development Site B is located approximately 175 feet north-northwest of the HCC. All other Development Sites are located approximately 525 feet (Development Site G) to 2,250 feet (Development Site C) from the USC HCC.

- USC Healthcare Consultation Center II. The USC HCCII is located south and/or east of the seven proposed Development Sites. Development Site B is located approximately 375 feet north of the HCCII. All other Development Sites are approximately 600 feet (Development Site E) to 2,500 feet (Development Site C) from the USC HCCII.

- Doheny Eye Institute. The Doheny Eye Institute is located south and/or east of the seven proposed Development Sites. Development Site B is located approximately 325 feet north of the Doheny Eye Institute. All other Development Sites are located approximately 500 feet (Development Site A) to 2,150 feet (Development Site C) from the Doheny Eye Institute.

- Francisco Bravo M.D. Magnet Senior High School. The Francisco Bravo M.D. Magnet Senior High School is located to the southeast of the Health Sciences Campus on the east side of Cornwell Street. Development Site A is located approximately 875 feet north of this high school. All other Development Sites are located approximately 1,150 feet (Development Site D) to 2,125 feet (Development Site C) from this High School campus location.

- Residential Neighborhood (A). Residential uses are situated on the eastern portion of the HSC, along Playground Avenue. Development Site B is located approximately 750 feet northwest of this residential area. All other Development Sites are located approximately 800 feet (Development Site E) to 3,075 feet (Development Site C) away from this residential area.

- Residential Neighborhood (B). A residential neighborhood is located east of Soto Street. Development Site E is located approximately 1,300 feet northwest of this residential area. All other Development Sites are located approximately 1,325 feet (Development Site B) to 3,250 feet (Development Site C) from this residential area.

- Residential Neighborhood (C). A residential neighborhood is located north of Main Street. Development Site C is located approximately 875 feet south of this residential

area. All other Development Sites are located approximately 1,375 feet (Development Site G) to 2,000 feet (Development Site E) from this residential area.

- Residential Neighborhood (D). A residential neighborhood is located south of Marengo Street. Development Site C is located approximately 1,500 feet north of this residential area. All other Development Sites are located approximately 1,700 feet (Development Site D) to 3,550 feet (Development Site E) from this residential area.

- Residential Neighborhood (E). A residential neighborhood is located north of Marengo Street. Development Site D is located approximately 1,150 feet northwest of this residential area. All other Development Sites are located approximately 1,700 feet (Development Site A) to 2,600 feet (Development Site F) from this residential area.

- Women and Children's Hospital. The Women and Children's Hospital is located south of Zonal Avenue. Development Site C is located approximately 375 feet northeast of this hospital use. All other Development Sites are located approximately 1,225 feet (Development Site A) to 3,025 feet (Development Site F) away from this hospital use.

- Nursing College. The Nursing College is located north of Mission Road. Development Site C is located approximately 475 feet southeast of this land use. All other Development Sites are located approximately 1,425 feet (Development Site D) to 2,750 feet (Development Site E) away from this land use.

- Hazard Park. Hazard Park is located south and/or east of the seven proposed Development Sites and is located south of Norfolk Street and east of San Pablo Street. Development Site A is located approximately 475 feet northwest of Hazard Park. All other Development Sites are located approximately 825 feet (Development Site B) to 2,025 feet (Development Site C) from Hazard Park.

- Lincoln Park. Lincoln Park is located north of Valley Boulevard and is separated from the HSC by Valley Boulevard and the railroad tracks that run parallel to, and south of, Valley Boulevard. Lincoln Park offers a wide variety of youth and adult recreational programs including fishing in the lake within the park. Development Sites E and F are the nearest Project components to this sensitive land use, and are located approximately 475 and 550 feet south of Lincoln Park, respectively. All other Development Sites are located approximately 600 feet (Development Site B) to 1,650 feet (Development Site D) from Lincoln Park.

- Child Daycare Center. The Children's Daycare Center is located along Playground Avenue, south of Alcazar Street. Development Site B is located approximately 900 feet east-northeast of this land use. All other Development Sites are located approximately 1,125 feet (Development Site E) to 3,025 feet (Development Site C) away from this land use.

3. ENVIRONMENTAL IMPACTS

a. Significance Thresholds

Construction Emissions

Based on criteria set forth in the City of Los Angeles' CEQA Thresholds Guide, the proposed Project would have a significant impact with regard to construction emissions if any of the following occurred:

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 75 pounds a day for ROC; (2) 100 pounds per day for NO_X; (3) 550 pounds per day for CO; and (4) 150 pounds per day for PM_{10} or SO_X.[31]

- Project-related fugitive dust and construction equipment combustion emissions cause an incremental increase in localized PM_{10} concentrations of 10.4 $\mu g/m^3$ or cause a violation of NO_2 or CO ambient air quality standards.[32]

- The proposed Project creates objectionable odors.

Operational Emissions

Based on criteria set forth in the City of Los Angeles' CEQA Thresholds Guide, the proposed Project would have a significant impact with regard to operational emissions if any of the following occurred:

---

[31] *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993.*

[32] *While the SCAQMD CEQA Air Quality Handbook (CEQA Handbook, 1993), does not provide any localized thresholds, the SCAQMD currently recommends localized significance thresholds (LST) for PM_{10}, NO_2, and CO in its draft document titled "SCAQMD Localized Significance Threshold Methodology for CEQA Evaluations (SCAQMD LST Guidelines)," June 19, 2003.*

- Operational emissions exceed any of the daily thresholds presented below:[33]

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

- The proposed Project causes an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively, at an intersection or roadway within one-quarter mile of a sensitive receptor.

- Project-related stationary source combustion equipment emissions cause an incremental increase in localized PM_{10} concentrations of 2.5 $\mu g/m^3$.[34]

- The proposed Project creates objectionable odors.

- The proposed Project would not be compatible with SCAQMD and SCAG air quality polices if it:

  – Causes an increase in the frequency or severity of existing air quality violations;

  – Causes or contributes to new air quality violations;

  – Delays timely attainment of air quality standards or the interim emission reductions specified in the AQMP; or

  – Exceeds the assumptions utilized in the SCAQMD's AQMP.

- The proposed Project would not be compatible with City of Los Angeles air quality policies if it does not substantially comply with the air quality goals and policies set forth within the City's General Plan.

[33] *South Coast Air Quality Management District, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project), 1993.*

[34] *While the SCAQMD* CEQA Air Quality Handbook *(*CEQA Handbook*, 1993), does not provide any localized thresholds, the SCAQMD currently recommends localized significance thresholds (LST) for PM_{10}, NO_2, and CO in its document titled "SCAQMD Localized Significance Threshold Methodology for CEQA Evaluations (SCAQMD LST Guidelines)," June 19, 2003.*

Toxic Air Contaminants

Based on criteria set forth in the City of Los Angeles CEQA Thresholds Guide, the proposed Project would have a significant impact with regard to toxic air contaminants if:

- On-site stationary sources emit carcinogenic or toxic air contaminants that individually or cumulatively exceed the maximum individual cancer risk of ten in one million or an acute or chronic hazard index of 1.0.[35]

- Hazardous materials associated with on-site stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials posing a threat to public health and safety.

- The project would be occupied primarily by sensitive individuals within a quarter mile of any existing facility that emits air toxic contaminants which could result in a health risk for pollutants identified in District Rule 1401.[36]

b. Project Features

The following design features that result in a reduction in air quality emissions are proposed as part of the proposed Project.

- The proposed Project would intensify development within the existing USC Health Science Campus by adding academic (medical-related), medical research, and medical office space, which would serve to reduce vehicle miles traveled between medical support facilities and hospitals/research institutes (e.g., LA County–USC Hospital, USC University Hospital, Doheny Eye Institute, etc.).

- All stationary-source emissions sources (e.g., emergency generator, boiler, and chiller) would utilize Best Available Control Technology (BACT) to meet SCAQMD requirements.

c. Methodology

An evaluation of potential impacts to local and regional air quality that may result from the construction and long-term operations of the proposed Project was conducted as follows:

---

[35] *SCAQMD Risk Assessment Procedures for Rules 1401 and 212, November 1998.*

[36] *SCAQMD, CEQA Air Quality Handbook, Chapter 6 (Determining the Air Quality Significance of a Project).*

Construction-Period Impacts

Daily regional emissions during construction were forecast by developing a conservative estimate of construction (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile-source and fugitive dust emissions factors derived from URBEMIS 2002.[37] For each of the seven proposed Development Sites, the construction process was separated into two or three phases: demolition (if necessary), site preparation/excavation, and building construction/finishing. The estimate of mass daily emissions derived from this analysis is based on the conservative assumption that 765,000 square feet of floor area and a 2,800-space parking structure would be constructed within three years.

The localized effects from the on-site portion of daily emissions were evaluated at each sensitive receptor location under three analysis scenarios (to ascertain maximum potential pollutant concentrations at each sensitive receptor location) using the Industrial Source Complex (ISC3-ST) dispersion model consistent with procedures outlined in the USEPA *1998 Guideline on Air Quality Models* and the SCAQMD *Localized Significance Threshold Methodology for CEQA Evaluations* guidance documents. Each analysis scenario assumes the buildout of 765,000 square feet of building floor area and 2,800 parking spaces. Scenario 1 maximizes development at the southwest portion of the proposed Project Site (Development Sites A, C, D, and G); Scenario 2 maximizes development at the northern portion of the proposed Project Site (Development Sites B, E, and F; and Scenario 3 maximizes development within the central portion of the proposed Project Site (Development Sites A, B, C, D, and G). These three conservative analysis scenarios would concentrate concurrent construction activity in different areas of the proposed Project Site to ascertain the maximum impact to localized air quality at each sensitive receptor location.

A complete listing of the construction equipment by phase, construction phase duration, emissions estimation model and dispersion model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in Appendix D (Air Quality) of this Draft EIR.

Operations-Period Impacts

The URBEMIS 2002 software was used to forecast the daily regional emissions estimates from mobile- and area-sources that would occur during long-term Project operations. In calculating mobile-source emissions, the URBEMIS 2002 default trip length assumptions were applied to the average daily trip (ADT) estimates provided by the Project's traffic consultant to

[37] *URBEMIS 2002 is an emissions estimation/evaluation model developed by the CARB that is based, in part, on SCAQMD* CEQA Air Quality Handbook *guidelines and methodologies.*

arrive at vehicle miles traveled (VMT). Stationary-source emissions were compiled using procedures outlined in the SCAQMD *CEQA Handbook*.

Localized CO concentrations were evaluated for Parking Scenario Nos. 1 and 2 using the CALINE4 microscale dispersion model, developed by Caltrans, in combination with EMFAC2002 emission factors. Localized PM_{10} concentrations related to operation of proposed Project stationary-source combustion equipment are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) if necessary. The screening-level analysis consists of reviewing the proposed Project's Site Plan and Project Description to identify any new or modified stationary-source combustion equipment sources. If it is determined that the proposed Project would introduce a new stationary-source combustion equipment source, or modify an existing stationary-source combustion equipment source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed Project impacts. All emissions calculation worksheets and air quality modeling output files are provided in Appendix D (Air Quality) of this Draft EIR.

Odor Impacts (Construction and Operations)

Potential odor impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) if necessary. The screening-level analysis consists of reviewing the proposed Project's Site Plan and Project Description to identify any new or modified odor sources. If it is determined that the proposed Project would introduce a new odor source, or modify an existing odor source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed Project Impacts.

Toxic Air Contaminants (TAC) Impacts (Construction and Operations)

Potential TAC impacts are evaluated by conducting a screening-level analysis followed by a more detailed analysis (i.e., dispersion modeling) if necessary. The screening-level analysis consists of reviewing the proposed Project's Site Plan and Project Description to identify any new or modified TAC emissions sources. If it is determined that the proposed Project would introduce a new source, or modify an existing TAC emissions source, then downwind sensitive receptor locations are identified and site-specific dispersion modeling is conducted to determine proposed Project impacts.

d. Project Impacts

(1) Construction

(a) Regional Construction Impacts

Construction of the proposed Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the Project Site. In addition, fugitive dust emissions would result from demolition and construction activities. Mobile source emissions, primarily NO_X, would result from the use of construction equipment such as bulldozers, wheeled loaders, and cranes. During the finishing phase, paving operations and the application of architectural coatings (i.e., paints) and other building materials would release reactive organic compounds. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

The proposed Project could result in the construction of up to 765,000 square feet of academic, medical research, and medical clinic floor area. Project development could occur on up to seven Development Sites, over a 10-year time frame. The timing and location of development would be determined based on the availability of funding sources. In order to provide a conservative analysis it is assumed that all construction would be completed within the first three years following entitlement. This assumption is conservative as it represents the minimum construction time frame for any particular building and concentrates all construction activity so it is occurring concurrently and at the earliest feasible date within the Project's overall development period. The latter two points are of particular note since construction emissions are directly related to the amount and intensity of construction activities (i.e., emissions increase as the amount of construction increases) and the emission factors for certain components of Project construction (i.e., construction worker trips and delivery vehicle trips) decrease over time in response to the introduction of greater numbers of vehicles that emit lower relative levels of pollutant emissions. The phasing and duration of construction activities (i.e., demolition, site preparation/excavation, and building construction/finishing) and the equipment that would be used under each of the three construction scenarios analyzed is presented in Appendix D of this Draft EIR.

The estimate of potential daily regional emissions during construction, using the aforementioned conservative assumptions, is presented in Table 13 on page 211. Detailed emission calculations are provided in Appendix D of this Draft EIR. As presented in Table 13, construction-related daily (short-term) emissions are expected to exceed SCAQMD significance thresholds for NO_X and ROC. Thus, emissions of these pollutants would result in significant

Table 13

CONSERVATIVE ESTIMATE OF DAILY EMISSIONS DURING CONSTRUCTION [a]

	Emission Totals (lbs/day)				
Construction Phase	**CO**	**NO_X**	**PM_{10}**	**ROC**	**SO_X**
Demolition	155	190	9	21	1
Site Grading/Excavation	260	270	107	22	1
Building Construction and Finishing	340	281	11	144	<1
Maximum Estimate for Each Pollutant	**340**	**281**	**107**	**144**	**1**
SCAQMD Daily Significance Threshold	550	100	150	75	150
Over (Under)	(210)	181	(43)	69	(149)
Significant?	No	Yes	No	Yes	No

[a] *Emissions estimates for each phase of construction was calculated for each of the three construction scenarios. The data presented in this table represents the highest emissions among the three construction scenarios. Detailed calculation data is provided in Appendix D of this EIR.*

Source: PCR Services Corporation, 2004.

short-term regional air quality impacts. Daily emissions of CO, SO_X, and PM_{10} would be considered adverse, but less than significant, since the levels of these emissions would fall below the SCAQMD significance thresholds. As mentioned earlier, these emission forecasts provided reflect a specific set of conservative assumptions where the entire maximum entitlement (i.e., 765,000 square feet of floor area and 2,800-space parking structure) would be built out over a very compressed three-year time period. Because of these conservative assumptions, actual emissions would likely be less than those forecasted. If construction is delayed (i.e., does not start in 2006), or occurs over a longer time period, emissions would be less due to: (1) a more modern and cleaner burning construction equipment fleet mix; and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions would occur over a longer time interval).

(b) Localized Construction Impacts

An analysis of localized construction impacts was conducted based on the SCAQMD's recommended Localized Significance Thresholds (LSTs) for PM_{10}, NO_2 and CO using the ISC3-ST microscale dispersion model as specified in the USEPA *1998 Guideline on Air Quality Models*. The maximum estimates of mass daily emissions discussed above were used as inputs into the ISC3-ST model to ascertain potential air pollutant concentrations at nearby sensitive receptor locations. The dispersion analysis evaluated three development scenarios in order to estimate the maximum potential pollutant concentration for PM_{10}, CO and NO_X at each sensitive receptor location. Scenario 1 evaluated the concurrent buildout of Development Sites A, C, D, and G; Scenario 2 evaluated the concurrent buildout of Development Sites B, E, and F; and Scenario 3 evaluated the concurrent buildout of Development Sites A, B, C, D, and G. These three conservative analysis scenarios would concentrate concurrent construction activity in

different areas of the proposed Project Site to ascertain the maximum impact to localized air quality at each sensitive receptor location. The ISC3-ST model was run using meteorological data from the SCAQMD Los Angeles-North Main Monitoring Station, which is available from the SCAQMD web site (www.aqmd.gov).

Under all analysis scenarios, the potential maximum CO (1-hour and 8-hour) and NO_2 concentrations, when added to background ambient concentrations, would not violate their respective AAQS at any of the 16 sensitive receptor locations. As such, localized impacts with respect to these localized pollutant concentrations during construction would be less than significant.

With respect to localized PM_{10} impacts during construction, the PM_{10} concentration contribution could potentially exceed the 10.4 $\mu g/m^3$ SCAQMD significance threshold at all but three sensitive receptor locations. A summary of potential maximum impacts at each of the 16 sensitive receptor locations that are shown in Figure 23 on page 202 is provided below:

- LA County–USC Hospital. A potential maximum PM_{10} concentration level attributable to the proposed Project of 37.58 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- USC University Hospital. A potential maximum PM_{10} concentration level attributable to the proposed Project of 31.83 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. Under all other development scenarios, the potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- USC Healthcare Consultation Center (HCC). A potential maximum PM_{10} concentration level attributable to the proposed Project of 92.73 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- USC Healthcare Consultation Center II (HCCII). A potential maximum PM_{10} concentration level attributable to the proposed Project of 49.03 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- Doheny Eye Institute. A potential maximum PM_{10} concentration level attributable to the proposed Project of 49.41 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- Francisco Bravo M.D. Magnet Senior High School. A potential maximum PM_{10} concentration level attributable to the proposed Project of 13.06 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- Residential Uses (A). A potential maximum PM_{10} concentration level attributable to the proposed Project of 16.96 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 $\mu g/m^3$.

- Residential Uses (B). A potential maximum PM_{10} concentration level attributable to the proposed Project of 10.34 $\mu g/m^3$ could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios. As such, the potential maximum concentration level attributable to the proposed Project would not exceed the SCAQMD significance threshold of

10.4 µg/m^3 under any development scenario, and localized PM_{10} impacts at this sensitive receptor location during construction would be less than significant.

- Residential Uses (C). A potential maximum PM_{10} concentration level attributable to the proposed Project of 20.82 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Residential Uses (D). A potential maximum PM_{10} concentration level attributable to the proposed Project of 7.88 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios. As such, the potential maximum concentration level attributable to the proposed Project would not exceed the SCAQMD significance threshold of 10.4 µg/m^3 under any development scenario and localized PM_{10} impacts at this sensitive receptor location during construction would be less than significant.

- Residential Uses (E). A potential maximum PM_{10} concentration level attributable to the proposed Project of 11.62 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Women and Children's Hospital. A potential maximum PM_{10} concentration level attributable to the proposed Project of 69.59 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Nursing College. A potential maximum PM_{10} concentration level attributable to the proposed Project of 27.80 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites A, B, C, D, and G.

The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Hazard Park. A potential maximum PM_{10} concentration level attributable to the proposed Project of 25.65 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Lincoln Park. A potential maximum PM_{10} concentration level attributable to the proposed Project of 71.83 µg/m^3 could occur at this sensitive receptor location during the concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios, but could still exceed the SCAQMD significance threshold of 10.4 µg/m^3.

- Child Daycare Center. A potential maximum PM_{10} concentration level attributable to the proposed Project of 10.02 µg/m^3 could occur at this sensitive receptor location during concurrent site preparation activities at Development Sites B, E, and F. The potential maximum PM_{10} concentration level attributable to the proposed Project would be less during all other phases of construction at these development sites as well as all construction activities occurring under the other two construction scenarios. As such, the potential maximum concentration level attributable to the proposed Project would not exceed the SCAQMD significance threshold of 10.4 µg/m^3 under any development scenario, and localized PM_{10} impacts at this sensitive receptor location during construction would be less than significant.

Modeling input parameters are detailed in the ISC-ST3 printout sheets, which are provided in Appendix D of this Draft EIR.

(c) Toxic Air Contaminants

The greatest potential for toxic air contaminant (TAC) emissions would be related to 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. Given that grading and excavation activities would occur for only three to six months per Development Site, the proposed Project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions with no residual emissions after construction and corresponding individual cancer risk. As such, Project-related toxic emission impacts during construction would not be significant.

(d) Odors

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed which would create objectionable odors. Therefore, no impact would occur and no mitigation measures would be required.

(2) Operations

(a) Regional Operations Impacts

Regional air pollutant emissions associated with proposed Project operations would be generated by the consumption of electricity and natural gas, by the operation of on-road vehicles, and by emergency generators. Pollutant emissions associated with energy demand (i.e., electricity generation and natural gas consumption) are classified by the SCAQMD as regional stationary source emissions. Electricity is considered an area source since it is produced at various locations within, as well as outside of, the Basin. Since it is not possible to isolate where electricity is produced, these emissions are conservatively considered to occur within the Basin and are regional in nature. Criteria pollutant emissions associated with the production and consumption of energy were calculated using emission factors from the SCAQMD's *CEQA Air Quality Handbook* (Appendix to Chapter 9).

On-site stationary sources would include chillers, boilers, and emergency generators. Any boilers (used for water and space heating) would be natural gas-fired. Criteria pollutant emissions associated with natural gas combustion were calculated using emission factors from the SCAQMD's *CEQA Air Quality Handbook* (Appendix to Chapter 9). These stationary sources (i.e., boilers) may require permits from the SCAQMD pursuant to Rules 201, 202, and 203. Emission increases related to those sources may be subject to SCAQMD Regulation XIII or Regulation XXX which, among other things, requires that Best Available Control Technology (BACT) be utilized to reduce pollutants and that any increases of criteria air pollutants be offset by achieving equivalent emission reductions at a facility within the Basin.

The proposed Project would also include the installation and operation of diesel-fired generators for emergency power generation. Unless a blackout occurs, these generators would be operated for a maximum of one hour per month for routine testing and maintenance purposes. The Applicant would be required to obtain permits to construct and operate these emergency generators under SCAQMD Rules 201, 202 and 203. Under SCAQMD Regulation XIII (New Source Review [NSR]), all generators would be required to meet Best Available Control Technology (BACT) requirements to minimize emissions of CO, VOC, NO_X, and PM_{10}. BACT standards for diesel-fired emergency generators specify a maximum allowable emissions rate of 8.5 grams of carbon monoxide per horsepower-hour (hp-hr), 1.0 gram of VOC per hp-hr, 6.9 grams of NO_X per hp-hr, and 0.38 gram of PM_{10} per hp-hr.[38] Sulfur dioxide emissions would be minor since the sulfur content of the diesel fuel would be limited to 0.05 percent by weight under SCAQMD Rule 431.2 (Sulfur Content of Liquid Fuels). Emergency equipment, however, is exempt from modeling and offset requirements (Rule 1304) and does not require a health risk assessment (Rule 1401).[39]

Emissions for miscellaneous sources were estimated to account for minor sources of criteria pollutants. Miscellaneous sources include, but are not limited to, consumer/commercial solvents, landscaping equipment, and delivery unloading equipment. These sources may not individually emit large quantities of criteria pollutants but when combined emit quantitative amounts of criteria pollutants. Miscellaneous sources were calculated to be 2 percent of the Project's combined mobile- and stationary-source daily emissions.

Mobile-source emissions were calculated using the URBEMIS 2002 emissions inventory model, which multiplies an estimate of daily vehicle miles traveled (VMT) by applicable Emfac2002 emissions factors. The URBEMIS 2002 model output and worksheets for calculating regional operational daily emissions are provided in Appendix D of this Draft EIR. As shown in Table 14 on page 218, regional emissions resulting from the proposed Project would not exceed regional SCAQMD thresholds for ROC, SO_X, CO, or PM_{10}. However, the proposed Project would exceed regional SCAQMD threshold for NO_X, and impacts associated with this pollutant would be significant.

[38] *Volatile organic compounds (VOCs) are compounds that have a high vapor pressure, such that they evaporate readily at ambient temperatures and, unlike reactive organic compounds (ROCs), include compounds which do not take part in photochemical smog reactions. For purposes of this analysis, VOCs are conservatively assumed to approximate ROC emissions that are addressed in the daily limits threshold.*

[39] *Offsets are not required under SCAQMD Rule 1304 (Exemptions) for equipment used exclusively as emergency standby equipment for non utility electrical power generation, provided that the equipment does not operate more than 200 hours per year.*

Table 14

MAXIMUM PROJECT-RELATED OPERATIONAL EMISSIONS
(Pounds per Day)

Emission Source	CO	NO_X	PM_{10}	ROC	SO_X
On Road Mobile Sources [a]	479	59	64	44	<1
Stationary Sources [b]	7	42	1	1	3
Miscellaneous Sources	10	2	1	1	<1
Total (Proposed Project)	496	103	66	46	3
SCAQMD Daily Significance Threshold	550	55	150	55	150
Over (Under)	**(54)**	**48**	**(84)**	**(9)**	**(147)**
Significant?	**No**	**Yes**	**No**	**No**	**No**

[a] *Mobile emissions calculated using the URBEMIS 2002 emissions model. Model output sheets are provided in Appendix D.*

[b] *Emissions due to Project-related electricity generation and natural gas consumption, calculated based on guidance provided in the SCAQMD CEQA Air Quality Handbook. Worksheets are provided in Appendix D.*

Sources: PCR Services Corporation, 2004.

(b) Local Impacts

Within an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations are generally found within close proximity to congested intersection locations. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (i.e., congested intersection) increase. For purposes of providing a conservative impact analysis, CO concentrations are typically analyzed at congested intersection locations, because if impacts are less than significant in close proximity of the congested intersections, impacts will also be less than significant at more distant sensitive receptor locations.

Project traffic during the proposed Project's operational phase would have the potential to create local area CO impacts. The SCAQMD recommends a hot-spot evaluation of potential localized CO impacts when volume-to-capacity (V/C) ratios are increased by 2 percent at intersections with a level of service (LOS) of D or worse. The SCAQMD also recommends a CO hot-spot evaluation when an intersection decreases in LOS by one level beginning when LOS changes from an LOS of C to D. Intersections were selected for analysis based on information provided in the Traffic Impact Study prepared by Linscott, Law, and Greenspan Engineers (See Appendix C of the Draft EIR for the complete traffic study).

In order to conservatively analyze Project impacts, two potential Parking Scenarios were developed, each of which would have a different effect on local circulation patterns in the areas within and immediately surrounding the USC Health Sciences Campus. Parking Scenario No. 1

assumes that parking for the Project will be provided at the west end of the campus, entirely within Development Site C. Access to the parking structure located within Development Site C would be provided via Zonal Avenue. Parking Scenario No. 2 assumes that parking for the Project will be provided entirely on the northeastern side of the campus, within Development Site E or in combination with Development Site F. Access to the parking structure located within Development Site E would be provided via San Pablo Street and Alcazar Street, while access to parking within Development Site F would be provided only via San Pablo Street.

Local area CO concentrations were projected for both Parking Scenarios access alternatives using the CALINE-4 traffic pollutant dispersion model. The analysis of CO impacts followed the protocol recommended by the California Department of Transportation and published in the document titled Transportation Project-Level Carbon Monoxide Protocol, December 1997. The analysis is also consistent with procedures identified through the SCAQMD's CO modeling protocol, with all four corners of each intersection analyzed to determine whether proposed Project development would result in a CO concentration that exceeds federal or state CO standards. As stated in the Protocol, receptor locations for the one-hour analysis were located 3 meters from each intersection corner and receptor locations for the eight-hour analysis were located 7 meters from each intersection corner.

The proposed Project's CO concentrations for 1- and 8-hour CO levels are presented in Table 15 on page 220 and Table 16 on page 221 for Parking Scenarios 1 and 2, respectively. As shown, the proposed Project would not have a significant impact upon 1-hour or 8-hour local CO concentrations due to mobile source emissions. Since significant impacts would not occur at the intersections with the highest traffic volumes that are located adjacent to sensitive receptors, no significant impacts are anticipated to occur at any other locations in the study area as the conditions yielding CO hotspots would not be worse than those occurring at the analyzed intersections. Consequently, the sensitive receptors that are included in this analysis would not be significantly affected by CO emissions generated by the net increase in traffic that would occur under the proposed Project. As the proposed Project does not cause an exceedance of an ambient air quality standard, the proposed Project's localized operational air quality impacts would therefore be less than significant.

Consideration of potential localized impacts as a result of the proposed 2,800-space parking structure was also provided as part of this analysis. The analysis approach was consistent the guidelines outlined in the SCAQMD-recommended document titled "*A User's Guide for the Parking Garage Analysis Models*," Robert Scully (1993). All modeling assumptions and worksheets are provided in Appendix D. Based on this approach, the maximum off-site CO contribution at any sensitive receptor location would be 0.6 parts per million (1-hour) and 0.46 parts per million (8-hour). When added to the highest recently recorded background concentrations of 7 parts per million (1-hour) and 6.3 parts per million (8-hour), localized CO concentrations would remain below 20 parts per million (1-hour standard) and 9.0 parts per

Table 15

PROJECT PARKING SCENARIO NO. 1 LOCAL AREA CARBON MONOXIDE DISPERSION ANALYSIS

Intersection	Peak Period[a]	Maximum 1-Hour 2015 Base Concentration [b] (ppm)	Maximum 1-Hour 2015 w/ Project Concentration [c] (ppm)	Significant 1-Hour Impact [d]	Maximum 8-Hour 2015 Base Concentration [e] (ppm)	Maximum 8-Hour 2015 w/ Project Concentration [f] (ppm)	Significant 8-Hour Impact [d]
I-5 NB and Marengo	A.M.	5.9	6.0	No	5.0	5.0	No
St.	P.M.	6.1	6.2	No	5.1	5.2	No
I-5 SB and Mission	A.M.	6.7	6.7	No	5.5	5.5	No
Rd. Off ramp	P.M.	6.2	6.3	No	5.2	5.2	No
Daly St. and Mission	A.M.	6.9	7.0	No	5.5	5.5	No
Rd.	P.M.	7.9	7.1	No	5.6	5.6	No
Soto St. and 10 WB	A.M.	6.7	6.8	No	5.5	5.6	No
Ramps	P.M.	6.5	6.6	No	5.4	5.4	No
Griffin Ave. and	A.M.	6.3	6.5	No	5.2	5.3	No
Mission Road	P.M.	6.6	6.7	No	5.4	5.5	No
Soto St. and Marengo	A.M.	6.9	6.9	No	5.5	5.5	No
St.	P.M.	6.8	6.8	No	5.4	5.4	No
Mission Road and	A.M.	6.6	6.6	No	5.3	5.3	No
Valley Boulevard	P.M.	6.6	6.7	No	5.4	5.4	No
Biggy Street and	A.M.	5.9	6.1	No	5.0	5.0	No
Zonal Avenue	P.M.	6.0	6.0	No	5.0	5.0	No
San Pablo Street and	A.M.	5.9	6.0	No	5.0	5.0	No
Alcazar Avenue	P.M.	6.0	6.1	No	5.0	5.1	No
Soto Street and I-10	A.M.	6.5	6.5	No	5.3	5.3	No
Eastbound Off-ramps	P.M.	6.3	6.3	No	5.2	5.2	No

ppm = parts per million

[a] *Peak hour traffic volumes are based on the Traffic Impact Study prepared for the Project by Linscott, Law and Greenspan, January 2005.*
[b] *SCAQMD 2015 1-hour ambient background concentration (5.1 ppm) + 2015 Base traffic CO 1-hour contribution.*
[c] *SCAQMD 2015 1-hour ambient background concentration (5.1 ppm) + 2015 w/ Project traffic CO 1-hour contribution.*
[d] *The most restrictive standard for 1-hour CO concentrations is 20 ppm and for 8-hour concentrations is 9.0 ppm.*
[e] *SCAQMD 2015 8-hour ambient background concentration (4.6 ppm) + 2015 Base traffic CO 8-hour contribution.*
[f] *SCAQMD 2015 8-hour ambient background concentration (4.6 ppm) + 2015 w/ Project traffic CO 8-hour contribution.*

Source: PCR Services Corporation, 2004.

million (8-hour standard) at all off-site receptor locations. In addition, the parking structure would be built in accordance with Los Angeles Municipal Code requirements, and as such, the facades would be 50 percent open, which would allow for adequate ventilation and dispersion of potential emissions to acceptable CO ambient concentrations. Therefore, the operation of the proposed Project's parking structure would not cause or localize air quality impacts related to mobile sources and emissions would therefore be less than significant.

The proposed Project will likely include installation and operation of diesel-fired generators for emergency power generation. Unless a blackout occurs, these generators would

Table 16

PROJECT PARKING SCENARIO NO. 2 LOCAL AREA CARBON MONOXIDE DISPERSION ANALYSIS

Intersection	Peak Period[a]	Maximum 1-Hour 2015 Base Concentration [b] (ppm)	Maximum 1-Hour 2015 w/ Project Concentration [c] (ppm)	Significant 1-Hour Impact [d]	Maximum 8-Hour 2015 Base Concentration [e] (ppm)	Maximum 8-Hour 2015 w/ Project Concentration [f] (ppm)	Significant 8-Hour Impact [d]
I-5 NB and Marengo	A.M.	5.9	6.0	No	5.0	5.0	No
St.	P.M.	6.1	6.2	No	5.1	5.2	No
I-5 SB and Mission	A.M.	6.7	6.7	No	5.5	5.5	No
Rd. Off ramp	P.M.	6.2	6.3	No	5.2	5.2	No
Daly St. and Mission	A.M.	6.9	7.0	No	5.5	5.5	No
Rd.	P.M.	6.9	7.0	No	5.6	5.6	No
Soto St. and 10 WB	A.M.	6.7	7.1	No	5.5	5.6	No
Ramps	P.M.	6.5	6.6	No	5.4	5.4	No
Soto St. and Alcazar	A.M.	6.8	7.1	No	5.4	5.6	No
St.	P.M.	6.4	6.6	No	5.3	5.4	No
Soto St. and Marengo	A.M.	6.9	6.9	No	5.5	5.5	No
St.	P.M.	6.8	6.9	No	5.4	5.4	No
Mission Road and	A.M.	6.6	6.6	No	5.3	5.3	No
Valley Boulevard	P.M.	6.6	6.6	No	5.4	5.4	No
San Pablo Street and	A.M.	5.9	6.1	No	5.0	5.1	No
Alcazar Street	P.M.	6.0	6.2	No	5.0	5.2	No
Soto Street and I-10	A.M.	6.5	6.5	No	5.3	5.4	No
Eastbound Off-ramp	P.M.	6.3	6.3	No	5.2	5.2	No

ppm = parts per million

[a] *Peak hour traffic volumes are based on the Traffic Impact Study prepared for the Project by Linscott, Law and Greenspan, January 2005.*
[b] *SCAQMD 2015 1-hour ambient background concentration (5.1 ppm) + 2015 Base traffic CO 1-hour contribution.*
[c] *SCAQMD 2015 1-hour ambient background concentration (5.1 ppm) + 2015 w/ Project traffic CO 1-hour contribution.*
[d] *The most restrictive standard for 1-hour CO concentrations is 20 ppm and for 8-hour concentrations is 9.0 ppm.*
[e] *SCAQMD 2015 8-hour ambient background concentration (4.6 ppm) + 2015 Base traffic CO 8-hour contribution.*
[f] *SCAQMD 2015 8-hour ambient background concentration (4.6 ppm) + 2015 w/ Project traffic CO 8-hour contribution.*

Source: PCR Services Corporation, 2004.

be operated for only a few hours per month for routine testing and maintenance purposes. The project Applicant would be required to obtain a permit to construct and a permit to operate any standby generators under SCAQMD Rules 201, 202 and 203. Under SCAQMD Regulation XIII (New Source Review [NSR]), all generators must meet Best Available Control Technology (BACT) requirements to minimize emissions of PM_{10} (as well as CO, VOC, and NO_X emissions). Compliance with SCAQMD Rules and Regulations regarding stationary-source combustion equipment would ensure that contributions to localized PM_{10} concentrations remain below the 2.5 $\mu g/m^3$ significance threshold. As such, any potential impacts would be less than significant.

(c) Regional Concurrent Construction and Operation Impacts

The potential exists that the later stages of proposed Project construction could occur concurrently with the occupancy of the earlier stages of development. Therefore, emissions associated with concurrent construction and operation activities were evaluated. Concurrent emissions would be their greatest in the latter stages of proposed Project construction, wherein the proposed Project would be nearly built-out (i.e., development on all but one site completed), but some construction activities would still be occurring (for purposes of this assumption, Development Site F). As summarized in Table 17 on page 223, concurrent construction and operational emissions would exceed regional SCAQMD daily thresholds for $NO_{X,}$ and ROC, but would not exceed the regional SCAQMD daily threshold for $SO_{X,}$ CO or PM_{10}. Thus, a significant regional air quality impact would occur.

(d) Toxic Air Contaminants

The primary source of potential air toxics associated with proposed Project operations include diesel particulates from delivery trucks (e.g., truck traffic on local streets, on-site truck idling and movement and operation of transportation refrigeration units), equipment used to off-load deliveries, boilers (used for water and space heating), and emergency backup generators. These potential sources would be dispersed among the Development Sites (i.e., at multiple loading dock, boiler and emergency backup generator locations). The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulates (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[40]

Typical sources of acutely and chronically hazardous toxic air contaminants include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. The proposed Project would not include any of these potential sources, although minimal emissions may result from the use of consumer products. As such, the proposed Project would not release substantial amounts of toxic contaminants, and a less than significant impact on human health would occur. Based on the limited activity of the toxic air contaminant sources, the proposed Project does not warrant the need for a health risk assessment, and potential air toxic impacts would be less than significant.

In addition, as discussed above any facility that warrants such an analysis will be required to comply with SCAQMD Rule XIV (New Source Review of Air Toxics).

---

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

Table 17

CONCURRENT OPERATION AND CONSTRUCTION EMISSIONS
(Pounds per day)

Emission Source	CO	NO_X	PM_{10}	ROC	SO_X
Operation Emissions [a]	413	86	55	38	3
Construction Emissions [b]	117	77	28	165	<1
Total	530	163	83	203	3
SCAQMD Construction Significance Threshold	550	100	150	75	150
Over (Under)	(20)	63	(67)	128	(147)
Significant?	No	Yes	No	Yes	No
SCAQMD Operation Significance Threshold	550	55	150	55	150
Over (Under)	(20)	108	(67)	148	(147)
Significant?	No	Yes	No	Yes	No

[a] *For purposes of this analysis, assumes buildout of entire Project except Development Site F.*
[b] *For purposes of this assumption, assumes maximum emissions attributable to construction activity on Development Site F.*

Source: PCR Services Corporation, 2004.

(e) Odors

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed Project does not include any uses identified by the SCAQMD as being associated with odors. The proposed Project may include a new vivarium; however, the University would employ the same odor control measures used to avoid odor complaints at existing vivaruims.[41] Compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts to a level that is less than significant.

(f) SCAQMD Handbook Policy Analysis

In accordance with the procedures established in the SCAQMD *CEQA Air Quality Handbook*, the following criteria are required to be addressed in order to determine the proposed

[41] *A vivarium is an enclosure for keeping or raising and observing animals, typically for laboratory research purposes.*

Project's consistency with SCAQMD and Southern California Association of Governments (SCAG)[42] policies:

1. Will 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.

2. Will the Project exceed the assumptions utilized in preparing the AQMP?

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for projects such as the USC Health Sciences Campus include forecasts of Project emissions in a regional context during construction and project occupancy. These forecasts are provided earlier in this section. Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of the proposed Project's pollutant emissions on localized pollutant concentrations is used as the basis for evaluating Project consistency.[43] As discussed in the preceding sections, localized concentrations for PM_{10}, CO, and NO_2 have been analyzed for the proposed Project. SO_2 emissions would be negligible during construction and long-term operations, and therefore would not have potential to cause or affect a violation of the SO_2 ambient air quality standard. There is no localized threshold for ROC emissions, only a regional emissions threshold.

PM_{10} is the primary pollutant of concern during construction activities, and therefore, the proposed Project's PM_{10} emissions during construction were analyzed: (1) to ascertain potential effects on localized concentrations; and (2) to determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standard for PM_{10}. Results of the PM_{10} dispersion modeling indicate that the increase in the ambient PM_{10} concentration during construction would exceed the SCAQMD-recommended 10.4 $\mu g/m^3$ PM_{10} significance threshold at multiple sensitive receptor locations. However, the potential for this impact would be short-term and would not have a long-term impact on the region's ability to meet State and Federal air quality standards. In addition, the Project would be required to comply with SCAQMD Rule 403

[42] *SCAG is the federally designated Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. As the designated MPO, SCAG is mandated by the federal government to develop and implement regional plans that address transportation, growth management, hazardous waste management, and air quality issues.*

[43] *South Coast Air Quality Management District, CEQA Air Quality Handbook, p. 12-3, 1993.*

and would implement all feasible mitigation measures for control of PM_{10}. Nevertheless, the proposed Project will have a significant temporary impact on localized PM_{10} concentrations.

In addition, the proposed Project's maximum potential NO_X and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. The analysis concluded that CO and NO_2 concentrations would not exceed their respective AAQS, and potential impacts would therefore be less than significant.

During long-term Project operations, CO is the preferred pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. Based on methodologies set forth by the SCAQMD, one measure of local area air quality impacts that can indicate whether the proposed Project would cause or affect a violation of an air quality standard would be based on the estimated CO concentrations at selected receptor locations located in close proximity to the Project Site. As indicated earlier, CO emissions were analyzed using the CALINE-4 model. No violations of the state and federal carbon monoxide standards are projected to occur. Overall, the proposed Project would result in less-than-significant impacts with regard to CO, NO_2 and SO_2 concentrations during Project construction and operations. While PM_{10} concentrations during construction would exceed the SCAQMD 10.4 $\mu g/m^3$ significance threshold, the potential for this impact would be short-term and would not have a long-term impact on the region's ability to meet State and federal air quality standards. As such, the proposed Project would meet the first AQMP consistency criterion.

With respect to the second criterion for determining consistency with SCAQMD and SCAG air quality policies, it must be recognized that air quality planning within the Basin focuses on the attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed Project exceeds the assumptions utilized in preparing the forecasts presented in the AQMP.

Determining whether or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with the population, housing and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis of each of these three criteria.

- Is the project consistent with the population, housing and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP if it is consistent with the population, housing and employment assumptions which were used in the development of the AQMP. The 2003 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates, in part, SCAG's 2001 Regional Transportation Plan (RTP) socioeconomic forecast projections of regional population and employment growth.

SCAG locates the Project Site within the City of Los Angeles Subregion. The 2004 RTP projects that employment in this subregion will grow by about 262,181 jobs between 2005 and 2015. The proposed Project is projected to result in a net increase of approximately 487 jobs on the Project Site, or approximately 0.19 percent of the total job growth projected for the subregion. Such levels of employment growth are consistent with the employment forecasts for the subregion as adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, it can be concluded that the proposed Project would be consistent with the projections in the AQMP.

- Does the project implement all feasible air quality mitigation measures?

Implementation of all feasible mitigation measures is recommended to reduce air quality impacts to the extent feasible. The Proposed Project would incorporate a number of key air pollution control measures identified by the SCAQMD, as described in Section IV.D.5, Mitigation Measures, below. As such, the proposed Project meets this AQMP consistency criterion since all feasible mitigation measures would be implemented.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

The proposed Project would serve to implement a number of land use policies of the City of Los Angeles and SCAG. Locating the proposed medical office and research facilities within the existing USC Health Sciences Campus would provide improved opportunities to consolidate and/or eliminate vehicle trips that would otherwise occur if such improvements were built outside of the USC Health Sciences Campus area. This serves to fulfill the AQMD objective of reducing vehicle miles traveled and their related vehicular air emissions. Consequently, the proposed Project would be consistent with AQMP land use policy.

Overall, the proposed Project is found to be consistent with the AQMP, as the proposed Project does not cause or worsen an exceedance of an ambient air quality standard, does not delay the attainment of an air quality standard, is consistent with the AQMP's growth projections, implements all feasible air quality mitigation measures, and is consistent with the AQMP's land use policies.

City of Los Angeles Policies

The City of Los Angeles General Plan was prepared in response to California state law requiring that each city and county adopt a long-term comprehensive general plan. This plan must be integrated, internally consistent, and present goals, objectives, policies and implementation guidelines for decision makers to use. The City has included an Air Quality Element as part of its General Plan. The planning area for the City's Air Quality Element covers the entire City of Los Angeles, which encompasses an area of about 465 square miles.

The 1992 revision of the City's General Plan Air Quality Element serves to aid the greater Los Angeles region in attaining the state and federal ambient air quality standards at the earliest feasible date, while still maintaining economic growth and improving the quality of life. The City's Air Quality Element and the accompanying Clean Air Program acknowledges the inter-relationships between transportation and land use planning in meeting the City's mobility and clean air goals. With the City's adoption of the Air Quality Element and the accompanying Clean Air Program, the City is seeking to achieve consistency with regional Air Quality, Growth Management, Mobility and Congestion Management Plans.

To achieve these goals, performance based standards have been adopted to provide flexibility in implementation of the policies and objectives of the City's Air Quality Element. The following City Air Quality Element Goals, Objectives and Policies are relevant to the Proposed Project:

Goal 2—Less reliance on single occupant vehicles with fewer commute and non-work trips.

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.

Policies 2.1.1—Utilize compressed work week schedules and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in an effort to reduce vehicle trips and/or vehicle miles traveled as an employer and encourage the private sector to do the same to reduce vehicle trips and traffic congestion.

As discussed previously, the proposed Project would locate medical office and research facilities within the existing USC Health Sciences Campus, which would provide improved opportunities to consolidate and/or eliminate vehicle trips that would otherwise occur if such improvements were built outside of the HSC area. USC currently provides a tram/shuttle service on the HSC as well as a service that runs between the University Park Campus and the HSC; and

provides carpool and vanpool services and information through its Transportation Services office. In addition, the current HSC location has convenient access to MTA and Foothill Transit bus services, and is located within close proximity to the future MTA Metro Gold Line Light Rail Transit line that is anticipated to be completed by 2009. The proposed Project is therefore considered consistent with this City 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.*
>
> > *Policy 2.2.1—Discourage single-occupant vehicle use through a variety of measures such as market incentives, mode-shift incentives, trip reduction plans, and rideshare incentives.*
> >
> > *Policy 2.2.2—Encourage multi-occupant vehicle travel and discourage single occupant vehicle travel by instituting parking management practices.*
> >
> > *Policy 2.2.3—Minimize the use of single occupant vehicles associated with special events, or in areas and times of high levels of pedestrian activities.*

The USC Health Science Campus improvements would be located within walking distance of MTA and Foothill Transit bus lines as well as being in proximity to the proposed Metro Gold Line Extension that is scheduled to be completed by 2009. In addition, USC offers a carpool and vanpool program as well as a $25 per month public transportation subsidy to eligible employees that can be applied toward the purchase of a monthly pass for MTA (bus or light rail), LADOT, and Metrolink transit services. Due to these features, a higher percentage of Project-related trips would be "transit trips" than would be the case if the proposed Project were to be located farther away from convenient public transit access.

> *Goal 4—Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality.*
>
> > *Objective 4.1—It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.*
> >
> > > *Policy 4.1.1—Coordinate with all appropriate regional agencies in the implementation of strategies for the integration of land use, transportation and air quality policies.*

As described above as part of the analysis relative to Goal 2, the proposed Project has incorporated a wide array of features into its land use plan specifically targeted towards the reduction of vehicle trips and vehicle miles traveled. In addition, development of the proposed Project at the proposed site offers the opportunity to utilize existing infrastructure to support growth in the Project area. It is well served by transit and has the opportunity to encourage pedestrian activities in this area.

Based upon this evaluation, it is concluded that the proposed Project would be consistent with City of Los Angeles air quality policies as it implements in a number of ways the air quality goals and policies set forth within the City's General Plan.

Overall, no significant impacts would occur as a result of Project development with respect to compatibility with applicable air quality policies.

(3) Additional Development Scenarios

The preceding air quality analysis addresses potential impacts during Project construction and operations. The construction air quality analysis includes forecasts of the following: (1) regional emissions of criteria pollutants attributable to construction equipment operating within each of the seven proposed Development Sites, construction worker travel to and from the Development Sites, and the delivery of construction materials; (2) localized concentrations of PM_{10}, NO_2, and CO during construction at 16 receptor locations in proximity of the Project site; (3) toxic air contaminants; and (4) odors. The operational air quality analysis includes the following: (1) forecasts of regional emissions of criteria pollutants attributable to motor vehicle travel, energy consumption, and miscellaneous minor sources; (2) forecast of localized concentrations of CO at selected intersections and analysis of localized concentrations of PM_{10}, VOC, and NO_X; (3) forecast of regional emissions of criteria pollutants during construction and operations; (4) analysis of toxic air contaminants; (5) analysis of odor impacts; and (6) Project consistency with the SCAQMD's Air Quality Management Plan (AQMP) and the City's General Plan Air Quality Element.

The Project, as proposed, provides flexibility with regard to the types and quantities of the various uses that could be developed as part of the Project. The preceding air quality analysis is based on the development of 765,000 square feet of academic and/or medical-related uses (i.e., 720,000 square feet of academic and support facilities and 45,000 square feet of medical clinic uses). Under the proposed Project, the amount of academic and/or medical research facilities could be reduced by as much as 255,000 square feet, while the amount of medical clinic facilities could be increased by as much as 75,000 square feet. Under this scenario, a total of 585,000 square feet of academic and medical research facilities would be developed. These variations would allow flexibility in the Project's land use mix in order to respond to the future

needs and demands of the HSC, the southern California economy, and changes in Project requirements.

While the exchange of uses would result in varying amounts of development (i.e., between 585,000 and 765,000 square feet), the range of permitted uses would be the same. As such the types of potential air quality impacts would be the same regardless of the amount of development that is actually constructed. The construction air quality analysis presented above provides a conservative forecast of potential construction air quality levels since it analyzes air quality impacts at each receptor location based on concurrent construction at geographically related Development Sites. This conservative assumption could occur if Project development consisted of 585,000 square feet, 765,000 square feet or any amount in between. As the construction air quality analysis is based on the amount of construction equipment operating at each site, the air quality impacts attributable to 765,000 square feet of development would not be exceeded if less than 765,000 square feet of development occurs. However, if less than 765,000 square feet of development occurs, less construction would occur over a shorter period. As the analysis is based on daily air quality levels, the construction air quality impacts under peak conditions would be the same regardless of the duration of construction and/or the total amount of development that occurs. Therefore, the conclusions presented above with regard to construction air quality impacts based on the development of 765,000 square feet of development would also apply to all of the potential additional development scenarios that could occur under the proposed Project. As such, regional emissions of NO_X and ROC during construction would result in a significant regional air quality impact. Whereas, localized concentrations of CO and NO_2 during construction would be less than significant, localized concentrations of PM_{10} would exceed the established significance threshold. In addition, emissions of toxic air contaminants and odors during construction would also be less than significant.

While the sources and quantities of emissions during Project operations would be different than during Project construction, the same conclusion applies with regard to the impacts of less than 765,000 square feet of development (i.e., impacts would be equal to or less than those forecasted to occur with 765,000 square feet of development). This results because the number of vehicle trips attributable to the Project would not be greater than those that would occur should 765,000 square feet of development occur. Impacts of on-site stationary sources would be less than or equal to those occurring with 765,000 square feet of development since the characteristics that determine the air quality levels from the individual stationary sources are not anticipated to increase with a reduction in the amount of development. Based on these conclusions, implementation of any additional development scenario would result in the following: (1) regional emissions of NO_X during operations would result in a significant regional air quality impact; (2) localized concentrations of CO, VOC, PM_{10}, and NO_2 during operations would be less than significant; (3) emissions of toxic air contaminants and odors during operations would also be less than significant; (4) regional emissions of NO_X and ROC during concurrent construction and operations impacts would result in a significant regional air

quality impact; and (5) the Project is consistent with the AQMP and the City's applicable air quality policies.

4. CUMULATIVE IMPACTS

a. Construction

Of the 14 related projects that have been identified within the proposed Project study area, there are 9 related projects that have not already been built or are currently under construction. With the exception of the USC HNRT building that is currently under construction, the Applicant has no control over the timing or sequencing of the related projects, and as such, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD's methodology to assess a project's cumulative impact differs from the cumulative impacts methodology employed elsewhere in this EIR, in which foreseeable future development within a given service boundary or geographical area is predicted and associated impacts measured.

With respect to the Project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal Clean Air Act mandates. As such, the proposed Project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures. In addition, the proposed Project would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide, which would include each of the related projects mentioned above. Nevertheless, construction-period NO_X and ROC mass regional emissions, and localized PM_{10} emissions associated with the proposed Project are already projected to result in a significant impact to air quality. In addition, there is a high probability that construction-period CO and PM_{10} mass regional emissions from related projects, when combined with proposed Project emissions, would exceed their respective SCAQMD daily significance thresholds. As such, cumulative impacts to air quality during proposed Project construction would be significant and unavoidable.

Similar to the proposed Project, the greatest potential for TAC emissions at each related project would be related to 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. Given that grading and excavation activities would occur for only three to six months per construction site, the proposed Project and the related projects that have not already been built would not result in a long-term (i.e., 70 years) substantial source of TAC emissions with no residual emissions after construction and corresponding individual cancer risk. Furthermore, any related project that has the potential to emit notable quantities of TACs would be regulated by the SCAQMD such that TAC emissions would be negligible. Thus, TAC emissions from the related projects are anticipated to be less than significant unto themselves, as well as cumulatively in conjunction with the proposed Project.

Also similar to the proposed Project, potential sources that may emit odors during construction activities at each related project would include the use of architectural coatings and solvents. SCAQMD Rule 1113 limits the amount of volatile organic compounds from architectural coatings and solvents. Via mandatory compliance with SCAQMD Rules, it is anticipated that construction activities or materials used in the construction of the related projects would not create objectionable odors. Thus, odor impacts from the related projects are anticipated to be less than significant unto themselves, as well as cumulatively in conjunction with the proposed Project.

b. Operation

The SCAQMD has set forth both a methodological framework as well as significance thresholds for the assessment of a project's cumulative operational air quality impacts. The SCAQMD's methodology differs from the cumulative impacts methodology employed elsewhere in this Draft EIR, in which foreseeable future development within a given service boundary or geographical area is predicted and associated impacts measured. The SCAQMD's approach for assessing cumulative impacts is based on the SCAQMD's AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the Federal and State Clean Air Acts. This forecast also takes into account SCAG's forecasted future regional growth. As such, the analysis of cumulative impacts focuses on determining whether the proposed Project is consistent with forecasted future regional growth. Therefore, if all cumulative projects are individually consistent with the growth assumptions upon which the SCAQMD's AQMP is based, then future development would not impede the attainment of ambient air quality standards and a significant cumulative air quality impact would not occur.

Based on the SCAQMD's methodology (presented in Chapter 9 of the *CEQA Air Quality Handbook*), a project would have a significant cumulative air quality impact if the ratio of daily Project-related employee vehicle miles traveled (VMT) to daily countywide vehicle miles traveled exceeds the ratio of daily Project employees to daily countywide employees. As shown in Table 18 on page 233, the daily Project to countywide VMT ratio is not greater than the

Table 18

PROJECT CUMULATIVE AIR QUALITY IMPACTS

Daily Vehicle Miles Traveled for Project Employment [a]	12,321
Daily Vehicle Miles Traveled Countywide [b]	225,794,000
Daily Vehicle Miles Traveled Ratio	0.00005
Project Employment [a]	487
Countywide Employment [c]	5,198,739
Employment Ratio	0.00009
Significance Test—Daily Vehicle Miles Traveled Ratio Greater Than Employment Ratio	No

[a] *Increase of vehicle miles traveled as a result of the Project, Traffic Analysis, Section IV.K. Data obtained from URBEMIS 2002.*
[b] *Data obtained from EMFAC2002.*
[c] *Data obtained from SCAG's Regional Transportation Plan, Socioeconomic Projections, April 2004*

Source: PCR Services Corporation, 2004.

Project to countywide employee ratio. Based on these criteria, development of the proposed Project would have a less-than-significant air quality impact. In addition, as shown in Table 15 on page 220, a localized CO impact analysis was conducted for cumulative traffic (i.e., related projects and ambient growth through 2015) in which no local CO violations would occur at any of the studied intersections. Despite these conclusions, the proposed Project is more conservatively concluded to contribute to a significant cumulative regional air quality impact as the Basin is non-attainment for ozone and PM_{10}, and the proposed Project would exceed the SCAQMD daily significance thresholds for ROC and NO_X emissions (i.e., ozone precursors).[44]

With respect to TAC emissions, neither the proposed Project nor any of the related projects (which are largely residential, restaurant, retail/commercial, and medical/research developments) would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing and transportation hub facilities. However, the proposed Project and each of the related projects would likely generate minimal TAC emissions related to the use of consumer products, landscape maintenance activities, etc. Pursuant to California Assembly Bill 1807, which directs the California Air Resources Board (ARB) to identify substances as TAC and adopt airborne toxic control measures (ATCMs) to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant.

[44] *This approach is more conservative than the approach provided in the SCAQMD CEQA Air Quality Handbook.*

With respect to potential odor impacts, neither the proposed Project land use nor any of the related projects (which are primarily hospital/medical office, general office, residential, retail, and restaurant uses) land uses have a high potential to generate odor impacts.[45] Furthermore, any related project that may have a potential to generate objectionable odors would be required by SCAQMD Rule 402 (Nuisance) to implement Best Available Control Technology to limit potential objectionable odor impacts to a less than significant level. Thus, potential odor impacts from related projects are anticipated to be less than significant unto themselves, as well as cumulatively, in conjunction with the proposed Project.

5. MITIGATION MEASURES

The following mitigation measures are (1) intended to implement requirements of SCAQMD Rule 403 (Fugitive Dust) and (2) set forth a program of air pollution control strategies designed to reduce the proposed Project's air quality impacts to the extent feasible.

a. Construction

Mitigation Measure D-1: General contractors shall implement a fugitive dust control program pursuant to the provisions of SCAQMD Rule 403.[46]

Mitigation Measure D-2: Disturbed areas shall be watered three times daily, which is above and beyond the SCAQMD Rule 403 requirement to water disturbed areas two times daily.

Mitigation Measure D-3: All construction equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

Mitigation Measure D-4: General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions. During construction, trucks and vehicles in loading and unloading queues would turn their engines off, when not in use, to reduce vehicle emissions. Construction emissions should be phased and scheduled to avoid emissions peaks and discontinued during second-stage smog alerts.

[45] *According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.*

[46] *SCAQMD Rule 403 requirements are detailed in Appendix D.*

Mitigation Measure D-5: Electricity from power poles rather than temporary diesel- or gasoline-powered generators shall be used to the extent feasible.

Mitigation Measure D-6: All construction vehicles shall be prohibited from idling in excess of ten minutes, both on- and off-site.

Mitigation Measure D-7: Project heavy-duty construction equipment shall use alternative clean fuels, such as low sulfur diesel or compressed natural gas with oxidation catalysts or particulate traps, to the extent feasible.

Mitigation Measure D-8: The Applicant shall utilize coatings and solvents that are consistent with applicable SCAQMD rules and regulations**.**

b. Operation

During the operational phase, the proposed Project would result in regional emissions that exceed regional SCAQMD significance thresholds for NO_X and ROC. Long-term mobile source emissions associated with the proposed Project shall be reduced through the following transportation systems management and demand management measures:

Mitigation Measure D-9: The Applicant shall provide public education to USC Health Science Campus visitors and employees regarding the importance of reducing vehicle miles traveled and utilizing transit, and the related air quality benefits through the use of brochures and other informational tools.

Mitigation Measure D-10: The Applicant shall, to the extent feasible, schedule deliveries during off-peak traffic periods to encourage the reduction of trips during the most congested periods.

Mitigation Measure D-11: The Applicant shall coordinate with the MTA and the City of Los Angeles Department of Transportation to provide information with regard to local bus and rail services.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

a. Construction

Project construction would not result in regional emissions that exceed SCAQMD regional significance thresholds for CO, PM_{10}, and SO_X, and as such, impacts with respect to these pollutants during construction would be less than significant. With respect to NO_X and

ROC emissions during construction, mitigation measures would reduce these emissions from heavy-duty construction equipment by 5 percent based on the calculations presented in Appendix C of this Draft EIR. However, the proposed Project would still result in regional construction emissions that exceed SCAQMD thresholds of significance for NO_X and ROC. Therefore, construction of the proposed Project would result in a significant and unavoidable impact on regional air quality with respect to NO_X and ROC emissions, and certification of this EIR by the City of Los Angeles would require the adoption of a Statement of Overriding Considerations.

Local air quality impacts (i.e., pollutant concentrations) during construction with respect to CO, SO_2 and NO_2 would be less than significant. With respect to localized PM_{10} concentrations during construction, prescribed mitigation measures would reduce the projected maximum concentrations by 8 percent to 38 percent as shown in Table 19 on page 237. Nevertheless, the proposed Project would still result in localized PM_{10} concentrations during construction emissions that exceed the SCAQMD 10.4 $\mu g/m^3$ significance threshold at 12 of the 16 sensitive receptor locations. Therefore, construction of the proposed Project would result in a significant and unavoidable impact on localized air quality with respect to PM_{10} concentrations, and certification of this EIR by the City of Los Angeles would require the adoption of a Statement of Overriding Considerations.

No notable impacts related to TAC emissions during construction are anticipated to occur for the proposed Project. As such, potential impacts would be less than significant.

The proposed Project is not anticipated to generate a substantial amount of objectionable odor emissions during construction. Via mandatory compliance with SCAQMD Rules, no construction activities or materials are proposed which would create objectionable odors. As such, potential impacts would be less than significant.

b. Operation

During the operational phase, the proposed Project would result in regional emissions that exceed the SCAQMD significance threshold for NO_X. Mitigation measures identified above would reduce the potential air quality impacts of the Project to the degree technically feasible, but NO_X mass daily emissions would remain above the SCAQMD significance threshold of 55 pounds per day. Therefore, operation of the proposed Project following construction would have a significant and unavoidable impact on regional air quality with respect to NO_X mass daily emissions.

Operational emissions would not exceed the SCAQMD significance threshold for CO, ROC, PM_{10}, and SO_2, and, thus, impacts are concluded to be less than significant for these pollutants.

Table 19

POTENTIAL MAXIMUM LOCALIZED PM_{10} CONCENTRATIONS WITH MITIGATION

Sensitive Receptor Location	PM_{10} Concentration in $\mu g/m^3$ (24-hour average) No Mitigation	With Mitigation	Percent Reduction
1. LA County–USC Hospital	37.58	29.84	21%
2. USC University Hospital	31.83	26.45	17%
3. USC Healthcare Consultation Center (HCC)	92.73	72.92	21%
4. USC Healthcare Consultation Center II (HCCII)	49.03	39.04	20%
5. Doheny Eye Institute	49.41	39.42	20%
6. Francisco Bravo M.D. Magnet Senior High School	13.06	11.95	8%
7a. Residential Use A	16.96	13.44	21%
7b. Residential Use B	10.34	8.31	20%
7c. Residential Use C	20.82	16.64	20%
7d. Residential Use D	7.88	6.33	20%
7e. Residential Use E	11.62	7.42	36%
8. Women and Children's Hospital	69.59	55.57	20%
9. Nursing College	27.80	17.29	38%
10. Hazard Park	25.65	20.55	20%
11. Lincoln Park	71.83	57.43	20%
12. Children's Daycare Center	10.02	8.06	20%

Source: PCR Services Corporation.

No significant impacts related to local CO concentrations are forecast to occur for the proposed Project. Project development would be consistent with the SCAQMD's AQMP, and the City's General Plan Air Quality Element resulting in an impact that is less than significant.

The proposed Project is not anticipated to include any notable TAC emissions sources. However, as previously discussed, any potentially significant TAC emission sources would be required to comply with SCAQMD Rule XIV (New Source Review of Air Toxics). As such, potential impacts from proposed Project TAC emissions would be less than significant.

Via compliance with industry standard odor control practices, SCAQMD Rule 402 (Nuisance), and SCAQMD Best Available Control Technology Guidelines, potential impacts that could result due to a vivarium or other potential odor source would be less than significant.