Courtyard and Towneplace Suites Hotel Project Air Quality Study

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AGOURA HILLS, CITY OF AGOURA HILLS
AIR QUALITY STUDY

This report is an analysis of the potential air quality impacts of the proposed Courtyard and Towneplace Suites Hotel project located in the City of Agoura Hills. The report has been prepared by Rincon Consultants, Inc. under contract to City of Agoura Hills for use by the City of Agoura Hills, in support of the environmental documentation being prepared pursuant to the California Environmental Quality Act (CEQA). The purpose of this study is to analyze the proposed project's air quality emissions and the associated impacts. This analysis considers both temporary the air quality impacts that would result from project construction and potential long-term air quality impacts associated with the location and operation of the proposed project.

PROJECT DESCRIPTION

The Courtyard and Townplace suites hotel project would involve the construction of a 225-room, dual brand, hotel on a 5.52-acre vacant parcel in the City of Agoura Hills. The site is generally situated between the 101 Freeway and Agoura Road west of Roadside Road, in the POM-FC – Planned Office Manufacturing (POM) and Freeway Corridor (FC) zones.

The project involves the construction of a new 3-story, 225 room hotel, with an outdoor swimming pool, a bar and lounge, a roof deck, and a parking lot. The site is currently vacant therefore no demolition would be required in order to construct the project. The site would be graded in order to construct the project, however, cut and fill would be balanced on site.

AIR QUALITY BACKGROUND

Local Climate and Meteorology

The project area is within the South Coast Air Basin (SCAB), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and 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. The regional climate within the SCAB is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the SCAB is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions within the SCAB are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial

water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment such as when high winds suspend fine dust particles.

Air Quality Regulation

The federal and state governments have established ambient air quality standards for the protection of public health. The United State Environmental Protection Agency (USEPA) is the federal agency designated to administer air quality regulation, while the Air Resources Board (ARB) is the state equivalent in the California EPA. County-level Air Pollution Control Districts (APCDs) provide local management of air quality. The ARB has established air quality standards and is responsible for the control of mobile emission sources, while the local APCDs are responsible for enforcing standards and regulating stationary sources. The ARB has established 14 air basins statewide.

The USEPA has set primary national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), PM_{10}, $PM_{2.5}$, and lead (Pb). Primary standards are those levels of air quality deemed necessary, with an adequate margin of safety, to protect public health. In addition, the State of California has established health-based ambient air quality standards for these and other pollutants, some of which are more stringent than the federal standards. Table 1 lists the current federal and state standards for regulated pollutants.

The South Coast Air Quality Management District (SCAQMD) the designated air quality control agency in the SCAB. The SCAB is designated in nonattainment for the federal and state one-hour and eight-hour ozone standards, the federal and state PM_{10} standards, the federal 24-hour $PM_{2.5}$ standard, and the state annual $PM_{2.5}$ standard. The SCAB is designated unclassifiable/attainment for all other federal and state standards. Characteristics of ozone, carbon monoxide, nitrogen dioxide, and suspended particulates are described below.

Table 1
Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone	1-Hour	---	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	---	---
	24-Hour	---	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	---	20 $\mu g/m^3$
	24-Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
$PM_{2.5}$	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
	24-Hour	35 $\mu g/m^3$	---
Lead	30-Day Average	---	1.5 $\mu g/m^3$
	3-Month Average	0.15 $\mu g/m^3$	---

ppm = parts per million;
$\mu g/m^3$ = micrograms per cubic meter
Source: ARB, October 2015, Ambient Air Quality Standards
http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Ozone. Ozone is produced by a photochemical reaction (triggered by sunlight) between nitrogen oxides (NO_X) and reactive organic gases (ROG[1]). NO_X is formed during the combustion of fuels, while reactive organic gases are formed during combustion and evaporation of organic solvents. Because ozone requires sunlight to form, it mostly occurs in substantial concentrations between the months of April and October. Ozone is a pungent, colorless, toxic gas with direct health effects on humans including respiratory and eye irritation and possible changes in lung functions. Groups most sensitive to ozone include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors.

Carbon Monoxide. CO is a local pollutant that is found in high concentrations only near fuel combustion equipment and other sources of carbon monoxide. The primary source of CO, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volumes. CO's health effects are related to its affinity for hemoglobin in the blood. At high concentrations, CO reduces the amount of oxygen in the blood, causing heart difficulty in people with chronic diseases, reduced lung capacity and impaired mental abilities.

[1] *Organic compound precursors of ozone are routinely described by a number of variations of three terms: hydrocarbons (HC), organic gases (OG), and organic compounds (OC). These terms are often modified by adjectives such as total, reactive, or volatile, and result in a rather confusing array of acronyms: HC, THC (total hydrocarbons), RHC (reactive hydrocarbons), TOG (total organic gases), ROG (reactive organic gases), TOC (total organic compounds), ROC (reactive organic compounds), and VOC (volatile organic compounds). While most of these differ in some significant way from a chemical perspective, from an air quality perspective two groups are important: non-photochemically reactive in the lower atmosphere, or photochemically reactive in the lower atmosphere (HC, RHC, ROG, ROC, and VOC). SCAQMD uses the term VOC to denote organic precursors.*

Nitrogen Dioxide. NO_2 is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 parts per million (ppm) may occur. NO_2 absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of PM_{10} and acid rain.

Suspended Particulates. Atmospheric particulate matter is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. The particulates that are of particular concern are PM_{10} (which measures no more than 10 microns in diameter) and $PM_{2.5}$, (a fine particulate measuring no more than 2.5 microns in diameter). The characteristics, sources, and potential health effects associated with the small particulates (those between 2.5 and 10 microns in diameter) and $PM_{2.5}$ can be different. Major man-made sources of PM_{10} are agricultural operations, industrial processes, combustion of fossil fuels, construction, demolition operations, and entrainment of road dust into the atmosphere. Natural sources include windblown dust, wildfire smoke, and sea spray salt. The finer, $PM_{2.5}$ particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. $PM_{2.5}$ is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance.

Current Air Quality

The SCAB monitoring station located nearest to the project site is the Reseda monitoring station located approximately 5 miles northeast of the project site. Table 2 indicates the number of days each of the standards has been exceeded at this station in each of the last three years for which data is available. As shown, the ozone concentration exceeded state standards in 2012 on 18 days, in 2013 on seven days, and in 2014 on six days. The $PM_{2.5}$ concentration exceeded federal standards on two days in 2012 and one day in 2013, however the $PM_{2.5}$ concentrations did not exceed federal standards in 2014. No exceedances of either the state or federal standards for NO_2 or CO have occurred at either monitoring station in the last three years. Background CO levels are well within standards.

Table 2
Ambient Air Quality at the Reseda Monitoring Station

Pollutant	2012	2013	2014
Ozone (ppm), Worst Hour	0.129	0.124	0.116
Number of days of State exceedances (>0.09 ppm)	18	7	6
Number of days of Federal exceedances (>0.12 ppm)	1	0	0
Nitrogen Dioxide (ppb) - Worst Hour	70	58	58
Number of days of State exceedances (>0.25 ppm)	0	0	0
Carbon Monoxide (ppm), Highest 8-Hour Average	2.70	*	*
Number of days of above State or Federal standard (>9.0 ppm)	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$, Worst 24 Hours	41.6	41.8	27.2
Number of days above Federal standard (>35 $\mu g/m^3$)	2	1	0

Data collected for the Reseda monitoring station
** There was insufficient (or no) data available to determine the value.*
Source: ARB Top Four Summary available at http://www.arb.ca.gov/adam/topfour/topfour1.php

Air Quality Management Plan

Under state law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in non-compliance. The SCAQMD updates the plan every three years. Each iteration of the SCAQMD's Air Quality Management Plan (AQMP) is an update of the previous plan and has a 20-year horizon. SCAQMD staff is currently developing the 2016 AQMP. The 2012 AQMP incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2007 AQMP. The SCAQMD adopted the 2012 AQMP in February 2013.

The Final 2012 AQMP also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. This Plan builds upon the approaches taken in the 2007 AQMP for the South Coast Air Basin for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The Final 2012 AQMP also includes a discussion of the emerging issues of ultrafine particle and near-roadway exposures, an analysis of the energy supply and demand issues that face the Basin and their relationship to air quality. The Plan also includes new demonstrations of 1-hour ozone attainment and vehicle miles travelled (VMT) emissions offsets, as per recent U.S. EPA requirements. The 2012 AQMP is incorporated by reference and available to download at http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

Sensitive Receptors

Ambient air quality standards have been established to represent the levels of air quality considered sufficient, with an adequate margin of safety, to protect public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14; the elderly over 65; persons engaged in strenuous work or exercise; and people with cardiovascular and chronic respiratory diseases. The majority of sensitive receptor locations are therefore, schools and hospitals. Sensitive receptors likely to be affected by air quality impacts associated with project construction include residential areas near the project site. The closest sensitive receptor is the multifamily residential development located 570 feet northwest of the site, across US 101. Typically sensitive receptors that are separated from a site by a freeway are not used due to the fact that the freeway acts as a barrier for emissions. This is because of the mixing effect that occurs when the cars are passing through the area. However, for this project, the multifamily residences are the closest sensitive receptor by at least one half mile. Therefore, in order to employ a more conservative approach, the multifamily residences are being considered the closest sensitive receptors for this analysis.

IMPACT ANALYSIS

Methodology and Significance Thresholds

This air quality analysis conforms to the methodologies recommended in the SCAQMD's *CEQA Air Quality Handbook* (1993). The handbook includes thresholds for emissions associated with both construction and operation of proposed projects.

The construction activities associated with development would generate diesel emissions and dust. Construction equipment that would generate criteria air pollutants includes excavators, graders, dump trucks, and loaders. Some of this equipment would be used during grading activities as well as when structures are constructed. It is assumed that all construction equipment used would be diesel-powered. The regional construction emissions associated with development of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod) software developed for the SCAQMD by estimating the types and number of pieces of equipment that would be used on-site during each of the construction phases. These construction emissions are analyzed using the regional thresholds established by the SCAQMD and published in the *CEQA Air Quality Handbook*.

Operational emissions associated with existing and proposed on-site development were estimated using CalEEMod. Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are generated by the increase in motor vehicle trips to and from the project site associated with operation of on-site development. Emissions attributed to energy use include natural gas consumption for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products and architectural coating. To determine whether a regional air quality impact would occur, the increase in emissions should be compared with the SCAQMD's recommended regional thresholds for operational emissions.

Regional Thresholds. To determine whether a proposed project would have a significant impact to air quality, Appendix G of the *CEQA Guidelines* questions whether a project would:

a) Conflict with or obstruct implementation of the applicable air quality plan;
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
d) Expose sensitive receptors to substantial pollutant concentrations; or
e) Create objectionable odors affecting a substantial number of people.

The SCAQMD has developed specific numeric thresholds that apply to projects within the South Coast Air Basin. The SCAQMD has established the following significance thresholds for temporary construction activities within the South Coast Air Basin:

- *75 pounds per day of ROG*
- *100 pounds per day of NO_X*
- *550 pounds per day of CO*
- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

The SCAQMD has also established the following significance thresholds for long-term project operation within the South Coast Air Basin:

- *55 pounds per day of ROG*
- *55 pounds per day of NO_X*
- *550 pounds per day of CO*
- *150 pounds per day of SO_X*
- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

Localized Significance Thresholds. In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook*. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, distance to the sensitive receptor, etc. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (SCAQMD, June 2003). As such, LSTs for operational

emissions do not apply to on-site development, as the majority of emissions would be generated by cars on the roadways.

LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The project site is approximately 5.52-acres and is located in Source Receptor Area 6 (SRA-6) (SCAQMD, 2008). LSTs for construction on a 5.52-acre site in SRA-6 are shown in Table 3. LSTs are provided for receptors at a distance of 82 to 1,640 feet (25 to 500 meters) from the project boundary. As described above, the sensitive receptor closest to the project site is multi-family residential development located approximately 570 feet northwest of the project site.

Table 3
SCAQMD LSTs for Construction (SRA-6)

Pollutant	Allowable emissions from a 5-acre site in SRA-6 for a receptor 328 feet away
Gradual conversion of NO_x to NO_2	226
CO	2,438
PM_{10}	51
$PM_{2.5}$	13

Source: SCAQMD, October 2009, http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2 *accessed online March 2016.*

Construction Impacts

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles and soil hauling trucks, in addition to ROG that would be released during the drying phase upon application of architectural coatings. Construction would generally consist of grading, erection of the proposed buildings, paving and architectural coating.

The grading phase involves the greatest amount of heavy equipment and the greatest generation of fugitive dust. For the purposes of construction emissions modeling, it was assumed that the project would comply with the SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Therefore, the following conditions, which would be required to reduce fugitive dust in compliance with SCAQMD Rule 403, were included in CalEEMod for the site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.

2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.
4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

The architectural coating phase involves the greatest release of ROG. The emissions modeling also includes the use of low-VOC paint (150 g/L for non-flat coatings) as required by SCAQMD Rule 1113.

Table 4 summarizes the estimated maximum daily emissions of pollutants during each year of the construction period with compliance with the above described requirements, but without any additional mitigation.

Table 4
Estimated Construction Maximum Daily Air Pollutant Emissions without Mitigation Measure (lbs/day)

Construction Phase[1]	Maximum Emissions (lbs/day)					
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_x
2017 Maximum lbs/day	53.1	51.9	40.5	11.1	7.1	0.1
2018 Maximum lbs/day	52.5	28.6	29.6	3.2	2.0	0.1
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**55**	**150**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
2017 Maximum On-site lbs/day	49.2	51.8	39.4	10.9	7.0	0.0
2018 Maximum On-site lbs/day	49.2	23.3	17.5	1.5	1.4	0.0
Local Significance Thresholds[2] (LSTs) (On-site only)	n/a	226	2,438	51	13	n/a
Threshold Exceeded?	**n/a**	**No**	**No**	**No**	**No**	**n/a**

Notes: All calculations were made using CalEEMod. See the Appendix for calculations. Grading, Paving, Building Construction and Architectural Coating totals include worker trips, soil export hauling trips, construction vehicle emissions and fugitive dust. Numbers may not add up due to rounding error
1. Grading phases incorporate anticipated emissions reductions from the conditions listed above, which are required by SCAQMD Rule 403 to reduce fugitive dust. The architectural coating phases incorporate anticipated emissions reductions from the conditions listed above, which are required by Rule 1113.
2. LSTs are for a 5-acre project in SRA-6 within a distance of 328 feet from the site boundary.

Emissions of CO, NO_X and ROG would not exceed SCAQMD regional or local significance thresholds. With adherence to the conditions listed above, as required by SCAQMD Rule 403, emissions of fugitive dust (PM_{10} and $PM_{2.5}$) would not exceed SCAQMD regional or local significance thresholds. Therefore, impacts would be less than significant and no mitigation would be required.

Long-Term Regional Impacts

AQMP Consistency. A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The 2012 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the Southern California Association of Government's (SCAG) Regional Transportation Plan socioeconomic forecast projections of regional population, housing and employment growth.

The proposed project involves the construction of a hotel, which would not cause a direct increase in the City's population. However, the project could cause an indirect increase in population through the creation of jobs. SCAG's *Employee Density Study* (2001) states that in Los Angeles County, hotels generate one employee per 1,179 sf. Based on this rate, the proposed third hotel would generate an estimated 116 employees. Most of these employees would likely be drawn from the local work force and, even if they were not, the increase in population would be within the City's projected 2020 population of 20,700. Therefore, the project would not

conflict with the AQMP. The project would be consistent with the AQMP and this impact would be less than significant.

Carbon Monoxide Hotspot Analysis. Areas with high vehicle density, such as congested intersections, have the potential to create high concentrations of CO, known as CO hotspots. A project's localized air quality impact is considered significant if CO emissions create a hotspot where either the California one-hour standard of 20 ppm or the federal and state eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (level of service [LOS] E or worse). Pursuant to SCAQMD guidance, a CO hotspot analysis should be conducted for intersections where the proposed project would have a significant impact at a signalized intersection, causing the LOS to change to E or F, or when the volume to capacity ratio (V/C) increases by 2% or more as a result of a proposed project for intersections rated D or worse (SCAQMD, 2003). The proposed project is forecast to result in 119 vehicle trips (70 inbound trips and 40 outbound trips) during the AM peak hour and 135 vehicles trips (69 inbound trips and 66 outbound trips) during the PM peak hour (ATE, November 2015). The proposed project would not result in a decrease in LOS at any local intersections, and would not result in a CO hotspot.

Operational Air Pollutant Emissions. Operational emissions associated with proposed on-site development were estimated using CalEEMod. Table 5 summarizes the emissions associated with operation of the proposed project. The majority of project-related operational emissions would be due to vehicle trips to and from the site. Existing and project traffic generation rates from the Traffic Impact Analysis prepared by Associated Transportation Engineers (November 2015) were used for the traffic analysis in order to provide a conservative estimate of the potential traffic generation impacts.

Table 5
Project Operational Emissions

Emissions Source	Estimated Emissions (lbs/day)					
	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Vehicles	5.5	13.4	53.7	0.1	9.6	2.8
Energy	0.1	1.3	1.1	<0.1	0.1	0.1
Area	5.0	<0.1	<0.1	<0.1	<0.1	<0.1
Maximum lbs/day	**10.6**	**14.7**	**54.9**	**0.1**	**9.6**	**2.8**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix for CalEEMod computer model output. Note: Numbers may not add up due to rounding.

As shown in Table 5, project generated emissions would not exceed the SCAQMD thresholds for ROG, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. Air quality impacts associated with operation of the proposed project would therefore, be less than significant.

Toxic Air Contaminants. The California Air Resources Board's (ARB's) *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005) recommends against siting sensitive receptors within 500 feet of a freeway. The primary concern with respect to freeway adjacency is the long-term effect of diesel exhaust particulates, a toxic air contaminant, on sensitive receptors. The primary source of diesel exhaust particulates is heavy-duty trucks on freeways and high-volume arterial roadways. The project involves the construction of a hotel. A hotel is not considered a sensitive receptor for air pollutant emissions. Therefore additional analysis is not required.

Odors. The 1993 SCAQMD CEQA Air Quality Handbook identifies land uses associated with odor complaints. Residential uses are not identified on Figure 5-5, Land Uses Associated with Odor Complaints, of the 1993 SCAQMD CEQA Air Quality Handbook. Therefore, the proposed project would not generate objectionable odors affecting a substantial number of people.

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