Appendix F

ACOUSTICAL REPORT

HELIX
Environmental Planning

One Paseo

ACOUSTICAL REPORT

March 2012

Prepared for:
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ACOUSTICAL REPORT

One Paseo

Project No. 193036

Prepared For

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March 2012

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GLOSSARY OF TERMS AND ACRONYMS

A-Weighted Sound Levels	Decibels (referenced to 20 micro-Pascals) as measured with an A-weighting network of standard sound level meter, abbreviated dB(A)
ANSI	American National Standards Institute
CADNA	Computer Aided Noise Abatement
CEQA	California Environmental Quality Act
City	City of San Diego
CNEL	Community Noise Equivalent Level: A 24-hour average, where sound levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7 a.m. have an added 10 dB weighting
Construction Site	For purposes of noise and vibration control requirements, the contract limits of construction; this includes right-of-way lines, property lines, construction easement boundary or property lines, and contractor staging areas outside the defined boundary lines, used expressly for construction
CVPD-EC	Carmel Valley Planned District Employment Center
CVPD-MUC	Carmel Valley Planned District Mixed Use Center
dB	Decibel
dBA	A-weighted sound pressure level
Daytime	The period from 7:00 a.m. to 10 p.m.
Evening	The period from 7:00 p.m. to 10:00 p.m.
GLA	Gross leasable area
HVAC	Heating, ventilating, and air conditioning
L_{EQ}	The equivalent sound level, or the continuous sound level, that represents the same sound energy as the varying sound levels, over a specified monitoring period
M1	noise measurement location approximately in the middle of the project side adjacent to El Camino Real

GLOSSARY OF TERMS AND ACRONYMS (cont.)

M2	noise measurement location approximately in the middle of the project side adjacent to Del Mar Heights Road
MCAS	Marine Corps Air Station
MF	Multi-Family
mph	Miles per hour
Nighttime	Periods other than daytime (as defined above), including legal holidays
Noise	Any audible sound that has the potential to annoy or disturb humans, or to cause an adverse psychological or physiological effect in humans
Noise Level Measurements	Unless otherwise indicated, the use of A-weighted and "slow" response of instrument complying with at least Type 2 requirements of latest revision of American National Standard Institute (ANSI) S1.4. Specification for Sound Level Meters
Noise-sensitive Location	A location where particular sensitivities to noise exist, such as residential areas, institutions, hospitals, parks, or other environmentally sensitive areas
SANDAG	San Diego Regional Association of Governments
sf	square feet
Sound Pressure Level (SPL)	The observable effect of acoustic energy radiation, quantifying sound level as perceivable by the receiver. When Sound Pressure is used to describe a noise source, the distance between source and receiver must be known in order to yield useful information about the power rating of the source.
Sound power level	A specialized analytical metric used to fully quantify the acoustic energy emitted by a source and is complete without accompanying information on the position of measurement relative to the source. It may be used to calculate the sound pressure level at any desired distance.
Sound Transmission Control (STC)	Sound transmission control

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EXECUTIVE SUMMARY

The proposed project entails the phased construction of an approximately 1,857,440-gross square foot mixed-use development on a 23.6-acre graded and vacant site located in the urbanized area of the Carmel Valley community of the City of San Diego (City). The property consists of four parcels, and is located at the southwestern corner of Del Mar Heights Road and El Camino Real.

This Acoustical Report evaluates potential noise impacts to proposed on-site uses and off-site sensitive receptors resulting from the project under Existing Plus Project, Near-term With Project, and Long-term Cumulative (Year 2030) With Project buildout conditions.

The primary noise sources in the vicinity of the project site include traffic noise on Del Mar Heights Road and El Camino Real. Other noise generated by residential and commercial uses are considered negligible at the project site. The measured noise level on-site was 67.4 A-weighted decibels (dBA) L_{EQ} (see glossary) near El Camino Real and 66.3 dBA L_{EQ} near Del Mar Heights Road. The calculated noise levels at these same two locations were 68.4 dBA L_{EQ} and 66.0 dBA L_{EQ}. Future noise levels are expected to increase as a result of increased traffic on the surrounding roadways. Thus, this analysis utilizes buildout traffic conditions.

The City has several established noise thresholds, including the following that are applicable to the project: construction noise thresholds (Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0404 Construction Noise); stationary noise limits at property lines (Municipal Code, Chapter 5, Article 9.5, Division 4, § 59.5.0401, Sound Level Limits); exterior usable space noise limits (Zoning Code); land use-noise compatibility guidelines (General Plan Noise Element); and traffic noise significance thresholds (California Environmental Quality Act [CEQA] Significance Determination Thresholds).

Project construction noise impacts to off-site properties would be in compliance with the Municipal Code that establishes a threshold of 75 decibels (dB) L_{EQ} average over the 12-hour period between 7:00 a.m. and 7:00 p.m. However, construction of Phase 3 while Phase 2 residential units are occupied would result in a potentially significant construction noise impact.

Project off-site traffic noise impacts would be less than significant.

While the project-proposed stationary noise impacts to off-site properties would be in compliance with the Municipal Code, on-site uses may exceed the Municipal Code noise limits. This impact would be considered potentially significant and would require mitigation.

Noise impacts from the surrounding environment to the proposed residential and commercial uses would be potentially significant per the Land Use-Noise Compatibility Guidelines. Mitigation would be required.

The mix of proposed commercial and residential/hotel uses on site would potentially result in the exceedance of the noise levels in the Land Use-Noise Compatibility Guidelines. These impacts would be considered potentially significant and would require mitigation.

Proposed mitigation would reduce potential on-site impacts to less than significant levels. Noise attenuation would be required to mitigate potential on-site construction noise impacts. As one option, a 12-foot temporary noise wall would be placed between the Phase 3 construction and the occupied Phase 2 residences. To mitigate land use-noise compatibility impacts to residences and commercial uses from roadway noise, enhanced building materials could be used. An exterior-to-interior noise analysis would be required, and the measures determined to be needed to reduce interior noise levels shall be incorporated into the project design prior to the issuance of building permits. To mitigate for potential on-site residential/hotel land-use compatibility impacts, an interior noise analysis of building plans shall be completed and appropriate measures shall be required, which would be related to heating, ventilating and air conditioning (HVAC), elevator, amplification devices, and specific lease agreements. To ensure no on-site noise impacts would result from the project, an on-site noise impact study shall be completed once building plans have been developed and, if necessary, measures shall be incorporated to ensure that property line noise impacts are less than significant per the Municipal Code.

1.0 INTRODUCTION

The proposed project entails the phased construction of an approximately 1,857,440-gross square foot mixed-use development on a 23.6-acre graded and vacant site located in the urbanized area of the Carmel Valley community of the City. The property consists of four parcels, and is located at the southwestern corner of Del Mar Heights Road and El Camino Real.

The project site is designated Employment Center by the Carmel Valley Community Plan, and zoned as Carmel Valley Planned District - Employment Center (CVPD-EC). The project proposes to change the community plan designation to Community Village and rezone the site to Carmel Valley Planned District- Mixed Use Center. The project includes the construction and operation of retail, market, office, hotel, outdoor public gathering area, and residential uses. This acoustical analysis report is submitted to satisfy the acoustical requirements of the City. The purpose of this report is to assess noise impacts from current and known future noise sources to the site and to assess project noise impacts to surrounding areas under Existing Plus Project (Buildout), Near-term With Project, and Long-term Cumulative (Year 2030) With Project conditions. This is necessary to determine if mitigation is required and feasible to reduce property line noise impacts for usable exterior space to below the City's property line noise limits and insure that it is feasible to plan exterior-to-interior noise impact levels with reasonable building noise control features. The City's CEQA Significance Determination Thresholds also require analysis of traffic noise impacts.

1.1 NOISE AND SOUND LEVEL DESCRIPTORS

All noise level or sound level values presented herein are expressed in terms of dB, with A-weighting to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, for a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where sound levels during evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dB weighting. This is similar to the Day-Night sound level, L_{DN}, which is a 24-hour average with an added 10 dB weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on the A-weighted decibel. These metrics are used to express noise levels for both measurement and municipal regulations, for land use guidelines, and for enforcement of noise ordinances.

1.2 PROJECT LOCATION

The project site encompasses a 23.6-acre graded and vacant site located in the developed Carmel Valley community of San Diego. The property is located at the southwestern corner of Del Mar Heights Road and El Camino Real. The Assessor's Parcel Numbers for the property are 304-070-43, 304-070-49, 304-070-57, and 304-070-52. The site is a roughly triangular-shaped area bounded by the two aforementioned roadways with High Bluff Drive to the west along part of the third side and a separate commercial office development along the rest of the project site. Interstate 5 is a quarter mile to the west of the project site. Please see Figures 1-1 and 1-2 for the project vicinity and an aerial view of the project site.

The nearest airport to the proposed project site is Marine Corps Air Station (MCAS), Miramar, located approximately 10 miles southeast of the site. The proposed project site is not located within the following contours identified in the MCAS Miramar Airport Land Use Compatibility Plan: noise contour, safety contour, over flight contour, or airport influence area. Therefore, no air traffic noise issues are anticipated for the project, and this issue is not discussed further in the analysis below.

1.3 PROJECT DESCRIPTION

The proposed project entails the phased construction of a mixed-use development with a maximum of 1,857,440 gross square feet (sf) of building area with approximately 270,000 gross leasable area (GLA) of commercial/retail, 536,000 GLA of office, a 150-room hotel, and 608 multi-family residential units. The project also would include public space areas, internal roadways, parking facilities, landscaping, hardscape treatments, and utility improvements to support these uses. Refer to Tables 1-1 and 1-2 below for development summaries of the proposed project. Figure 1-3 shows the proposed project site plan.

For the purposes of phasing, the project has been divided into five blocks (Blocks A through E) surrounded by a central Main Street. Blocks D and E would be constructed in Phase 1, Block A is anticipated to be constructed in Phase 2, and Blocks B and C are anticipated to be developed in Phase 3.

To allow for these proposed uses, the project proposes General Plan/land use plan amendments and a rezone. The project proposes to change the General Plan land use designation from Industrial Employment to Multiple Use, the Carmel Valley Community Plan designation from Employment Center to Community Village, and the Carmel Valley Employment Center Precise Plan designation from Employment Center to Community Village. The rezone consists of changing from the existing CVPD-EC zone to a new zone, Carmel Valley Planned District - Mixed Use Center (CVPD-MC)

1.4 SENSITIVE RECEPTORS

Off-site sensitive receptors in the vicinity include schools, parks, and residences. Proposed on-site land uses that would be considered sensitive noise receptors include residences and hotel rooms. While not considered sensitive uses, impacts to offices and commercial uses may be considered significant if noise exceeds the City's established thresholds described below in Section 1.5.

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Regional Location Map

ONE PASEO

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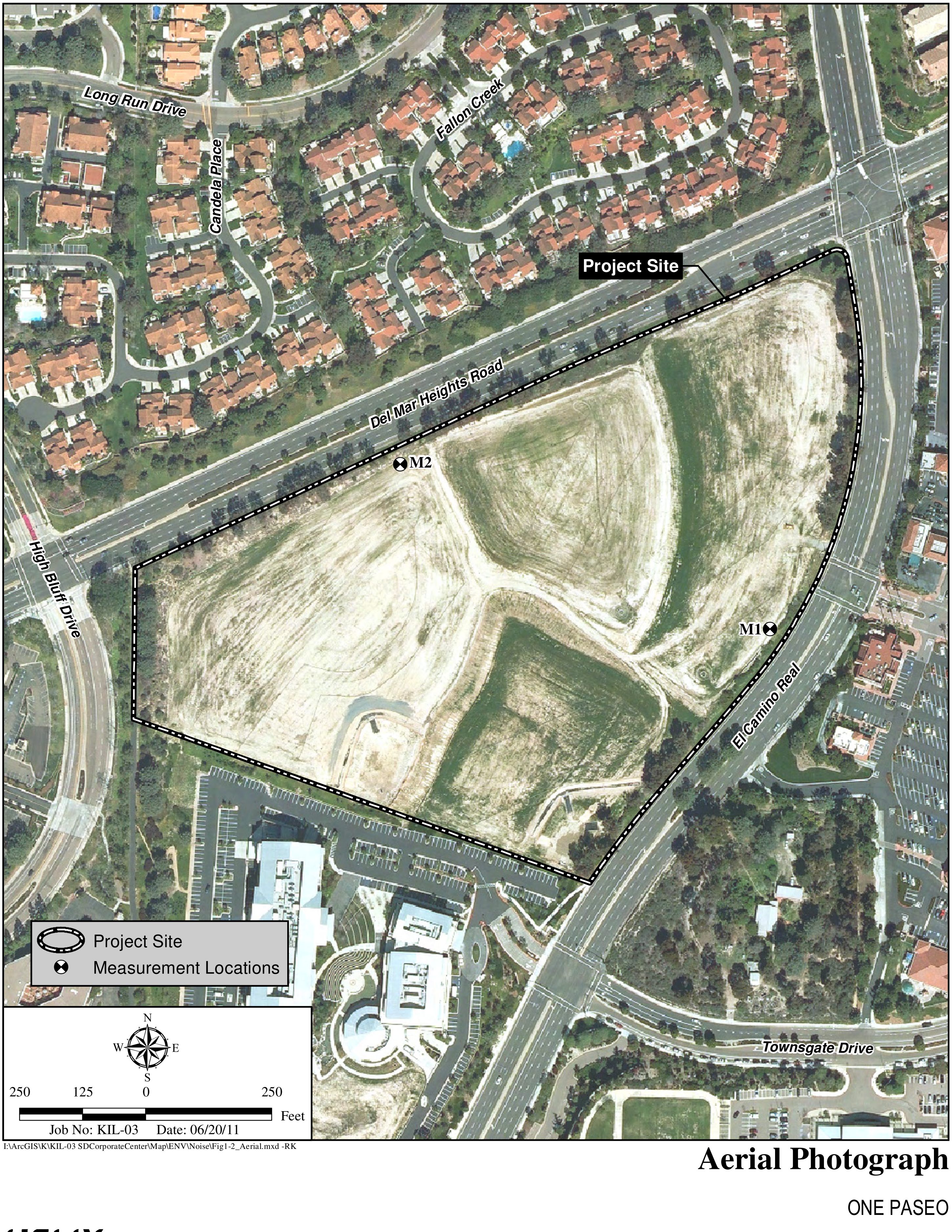
Figure 1-1



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Aerial Photograph

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Figure 1-2

Source: Elkus/Manfredi Architects (2011)

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Site Plan

ONE PASEO

Figure 1-3

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Table 1-1
DEVELOPMENT SUMMARY

Phase/Block	Commercial Retail[1] (sf)		Commercial Office[3] (sf)		Hotel (Rooms)	Residential (MF Units)	Total[3]
	Retail	Cinema[2]	Corporate Office	Professional Office[4]			
Phase 1							
Block D	61,190	---	270,000	21,000	---	---	352,190
Block E	39,460	---	245,000	---	---	---	284.460
Phase 1 Total	*100,650*	---	*515,000*	*21,000*	---	---	*636,650*
Phase 2							
Block A	65,610	---	---	---	---	194	65,610 + 194 MF units
Phase 2 Total	*65,610*	---	---	---		*194*	*65,610 + 194 MF units*
Phase 3							
Block B	38,940	---	---	---	150	181	38,940 + 150 hotel rooms + 181 MF units
Block C	14,800	---	---	---		233	14,800 + 233 MF units
Block D	---	50,000	---	---	---		50,000
Phase 3 Total	*53,740*	*50,000*	---	---	---	*414*	*103,740 + 418 MF units*
Total[1]	**220,000**	**50,000**	**515,000**	**21,000**	**150**	**608**	**806,000 + 150 hotel rooms + 608 MF units**

MF = multi-family
[1] As it relates to retail, all areas are considered gross leasable because all retail space may be leasable.
[2] Cinema consists of up to 10 screens.
[3] Gross Leasable Area (excludes parking structures in conformance with City of San Diego LDC Sections 113.0234 and 142.0560). Density transfers permitted in accordance with procedures described in the Precise Plan.
[4] Professional Office (located on Main Street).

Table 1-2
GROSS FLOOR AREA SUMMARY [1]

Commercial Retail[2] (sf)		Commercial Office (sf)		Hotel (sf)	Residential (sf)	Total
Retail	Cinema[3]	Corporate Office	Professional Office[4]			
220,000	50,000	535,600	21,840	100,000	930,000	1,857,440

[1] Gross Floor Area calculations per Land Development Code.
[2] Gross square feet
[3] Cinema of up to 10 screens.
[4] Professional Office (located on Main Street).

1.5 APPLICABLE NOISE REGULATIONS AND STANDARDS

Applicable noise standards for this project are codified in the following:

City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, §59.5.0404 Construction Noise

(a) It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

(b) Except as provided in subsection C. hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12–hour period from 7:00 a.m. to 7:00 p.m.

(c) The provisions of subsection B. of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, § 59.5.0401, Sound Level Limits

(a) It shall be unlawful for any person to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table (Table 1-3), at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person.

Table 1-3 APPLICABLE NOISE LIMITS		
Land Use Zone	**Time of Day**	**One-hour Average Sound Level (dB)**
Single Family Residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-Family Residential (Up to a maximum density of 1/2000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other Residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or Agricultural	anytime	75

Source: City of San Diego Municipal Code, Chapter 5, Article 9.5, Division 4, § 59.5.0401, Sound Level Limits

(b) The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits for the two districts. Permissible construction noise level limits shall be governed by Section 59.5.0404 of this article.

(c) Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of Part (a) of this section, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

Zoning Code

The City typically requires multi-family residential developments to provide on-site usable outdoor recreation space through the Zoning Code. It is assumed that the proposed zone classification (CVPD-MUC) will require open space for proposed multi-family uses. The maximum noise level at usable outdoor areas that are proposed to meet this requirement is 65 CNEL.

City of San Diego General Plan Noise Element (March 2008)

The following policies were instated to ensure that the City would consider existing and future noise levels when making land use planning decisions to minimize people's exposure to excessive noise. More specifically, the Land Use-Noise Compatibility Guidelines were established for "evaluating land use noise compatibility when reviewing proposed land use development projects."

NE-A.1. Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.

NE-A.2. Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use (shown on Table 1-4, Land Use - Noise Compatibility Guidelines, below) to minimize the effects on noise-sensitive land uses.

Table 1-4
LAND USE - NOISE COMPATIBILITY GUIDELINES

Land Use Category	**Exterior Noise Exposure (dBA CNEL)**				
	>60	60-65	65-70	70-75	75<
Open Space and Parks and Recreational					
Community & Neighborhood Parks; Passive Recreation					
Regional Parks; Outdoor Spectator Sports, Golf Courses; Athletic Fields; Outdoor, Spectator Sports, Water Recreational Facilities; Horse Stables; Park Maintenance Facilities					
Agricultural					
Crop Raising & Farming; Aquaculture, Dairies; Horticulture Nurseries & Greenhouses; Animal Raising, Maintain & Keeping; Commercial Stables					
Residential					
Single Units; Mobile Homes; Senior Housing		45			
Multiple Units; Mixed-Use Commercial/Residential; Live Work; Group Living Accommodations		45	45		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12 Educational Facilities; Libraries; Museums; Places of Worship; Child Care Facilities		45			
Vocational or Professional Educational Facilities; Higher Education Institution Facilities (Community or Junior Colleges, Colleges, or Universities)		45	45		

Table 1-4 (cont.) LAND USE - NOISE COMPATIBILITY GUIDELINES					
Land Use Category	**Exterior Noise Exposure (dBA CNEL)**				
	>60	60-65	65-70	70-75	75<
Cemeteries					
Sales					
Building Supplies/Equipment; Food, Beverages & Groceries; Pets & Pet Supplies; Sundries, Pharmaceutical, & Convenience Sales; Wearing Apparel & Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating & Drinking; Financial Institutions; Assembly & Entertainment; Radio & Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	
Offices					
Business & Professional; Government; Medical, Dental & Health Practitioner; Regional & Corporate Headquarters			50	50	
Vehicle and Vehicular Equipment Sales and Services Use					
Commercial or Personal Vehicle Repair & Maintenance; Commercial or Personal Vehicle Sales & Rentals; Vehicle Equipment & Supplies Sales & Rentals; Vehicle Parking					
Wholesale, Distribution, Storage Use Category					
Equipment & Materials Storage Yards; Moving & Storage Facilities; Warehouse; Wholesale Distribution					
Research & Development				50	

	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.
		Outdoor Uses	Activities associated with the land use may be carried out.
	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas.
		Outdoor Uses	Feasible noise mitigate techniques should be analyzed and incorporated to make the outdoor activities acceptable.
	Incompatible	Indoor Uses	New construction should not be undertaken.
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.

Source: City 2008

NE-A.3. Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.

NE-A.4. Require an acoustical study consistent with Acoustical Study Guidelines for proposed developments in areas where the existing or future noise level exceeds or would exceed the "compatible" noise level thresholds as indicated on the Land Use - Noise Compatibility Guidelines, so that noise mitigation measures can be included in the project design to meet the noise guidelines.

NE-A.5. Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.

CEQA Significance Thresholds

This report addresses the applicable City's CEQA Significance Determination Thresholds, but with the following revisions. The City's CEQA Significance Determination Thresholds contain specific traffic noise and land use compatibility significance thresholds that were previously included as a part of the City of San Diego Progress Guide and General Plan. Specifically, the Land Use Compatibility Chart Table (K-4) has been updated in the current General Plan (2008), and the Transportation Element of the 2008 General Plan does not include the traffic noise thresholds that are in Table K-2 of the City's CEQA Significance Determination Thresholds. This analysis utilizes the 2008 General Plan Land Use-Noise Compatibility thresholds instead of Table K-4 to evaluate potential noise – land use compatibility impacts. Based on direction from City staff, the most conservative traffic noise guidelines should be utilized based on a combination of Table K-2 and the 2008 General Plan Land Use-Noise Compatibility thresholds. Thus, the traffic noise thresholds in the Table 1-5 below are used in this analysis.

Table 1-5
TRAFFIC NOISE SIGNIFICANCE THRESHOLDS IN CNEL

Structure or Proposed Use that would be impacted by Traffic Noise	Interior Space	Exterior Useable Space[1]	General Indication of Potential Significance
Single-family detached	45 dB	65 dB	Structure or outdoor useable area[2] is <50 feet from the center of the closest (outside) lane on a street with existing or future ADTs >7500[24]
Multi-family, schools, libraries, hospitals, day care, hotels, motels, parks, convalescent homes.	DSD/BDR ensures 45 dB pursuant to Title 24	65 dB	
Offices, Churches, Business, Professional Uses	50 dB*	70 dB	Structure or outdoor usable area is <50 feet from the center of the closest lane on a street with existing or future ADTs > 20,000
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses	50 dB*	75 dB	Structure or outdoor usable area is <50 feet from the center of the closest lane on a street with existing or future ADTs >40,000

Source: City 2008 and City 2011
[1] If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3 dB increase, then the impact is not considered significant.
[2] Exterior usable areas do not include residential front yards or balconies, unless the areas such as balconies are part of the required usable open space calculation for multi-family units.
[3] Traffic counts are available from:

- San Diego Regional Association of Governments (SANDAG) Regional Economic Development Information System: http://cart.sandag.cog.ca.us/REDI/
- SANDAG Traffic Forecast Information Center: http://pele.sandag.org/trfic.html

*Based on the more restrictive City of San Diego 2008 Land Use-Noise Compatibility Guidelines

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2.0 ENVIRONMENTAL SETTING

2.1 SURROUNDING LAND USES

The proposed site is surrounded by Del Mar Highlands Town Center shopping center to the east, a single-family residence to the southeast, office buildings to the south and west, and residential neighborhoods to the north. Del Mar Highlands Town Center is a 30-acre shopping center that contains retail shops, restaurants, major grocery store, and a major drug store, a theater, plaza, and amphitheater. The surrounding offices to the south contain a research and development company (Neurocrine Biosciences), and the Highlands Corporate Center complex to the west contains law offices, the Hydrologic Research Center, and other tenants. Residences north of the site (across Del Mar Heights Road) consist of condominiums. Surrounding buildings range from one to four stories.

2.2 SURROUNDING ROADWAY DESCRIPTIONS

Del Mar Height Road is a divided six-lane prime arterial adjacent to the site with a posted 40 miles per hour (mph) speed limit. El Camino Real is a divided six-lane major adjacent to the site with a posted 50 mph speed limit. High Bluff Drive is a collector with two lanes in the northbound direction and one lane in the southbound direction, and has a posted 30 mph speed limit. High Bluff Drive is located adjacent to a portion of the western project boundary.

2.3 EXISTING NOISE ENVIRONMENT

The primary noise sources in the vicinity of the project site include automobile and truck traffic noise along El Camino Real, Del Mar Heights Road, and High Bluff Drive. The shopping areas to the east have a negligible noise impact to the project site due to the distance separating the site and the existing noise levels. Residential uses in the surrounding areas are not considered substantial noise generators. While heating and ventilation systems and outdoor parking areas on the Neurocrine site to the south generate noise, these sources are not considered substantial because of the separation distance. Thus, this analysis focuses on the noise impacts from the surrounding roadways on the project, internal project impacts, and project impacts to adjacent uses.

2.4 FUTURE NOISE ENVIRONMENT

The surrounding project area is entirely built out with the exception of the project site. However, buildout of other areas in the region would lead to additional traffic on the roadways in the area that would generate traffic noise increases. The roadway classification, speed limit, alignment, truck percentages, and roadbed grade elevations are expected to remain the same for all surrounding roadways.

The impact analysis below is based on buildout traffic conditions, as the buildout conditions include the highest traffic and the worst-case noise scenario. The Existing Plus Project and Near-term With Project roadway traffic volumes are presented only for information and to show that the buildout conditions actually do represent the worst-case scenario. All noise planning for the site will be based on the future buildout traffic volumes.

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3.0 STUDY METHODS, EQUIPMENT, AND PROCEDURES

This section discusses the methods and procedures followed for the noise study, including the selection of noise measurement and receiver locations, noise measurement procedures, and noise impact evaluation.

3.1 METHODOLOGY

Typically, a “one-hour” equivalent sound level measurement (L_{EQ}, A-Weighted) is recorded for at least one noise-sensitive location on the site. During the on-site noise measurement, start and end times are recorded, vehicle counts are made for cars, medium trucks (double-tires/two axles), and heavy trucks (three or more axles) for the corresponding road segment(s). Supplemental sound measurements of one hour or less in duration are often made to further describe the noise environment of the site.

For measurements of less than one hour in duration, the measurement time is long enough for a representative traffic volume to occur and the noise level (L_{EQ}) to stabilize; 15 minutes is usually sufficient for this purpose. The vehicle counts are then converted to one-hour equivalent volumes by applying an appropriate factor. Other field data gathered include measuring or estimating distances, angles-of-view, slopes, elevations, roadway grades, and vehicle speeds. This information is subsequently verified using available maps and records.

3.2 EQUIPMENT

The following equipment was used to measure existing noise levels at the project site:

- Larson Davis System LxT Integrating Sound Level Meter
- Larson Davis Model CA250 Calibrator
- Windscreen and tripod for the sound level meter
- Distance measurement wheel
- Digital camera

The sound level meter was field-calibrated immediately prior to the noise measurement, to ensure accuracy. All sound level measurements conducted and presented in this report in accordance with the regulations, were made with a sound level meter that conforms to the American National Standards Institute specifications for sound level meters (ANSI SI.4-1983 R2001). All instruments are maintained with National Bureau of Standards traceable calibration per the manufacturers’ standards.

3.3 NOISE MODELING SOFTWARE

Modeling of the outdoor noise environment is accomplished using Computer Aided Noise Abatement (CADNA) Ver. 3.6, which is a model-based computer program, developed by DataKustik for predicting noise impacts in a wide variety of conditions. CADNA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project information, such as noise source data, barriers, structures, and topography to create a detailed CADNA model and uses the most up-to-date calculation standards to predict outdoor noise impacts. CADNA traffic noise prediction is based on the data and methodology used in the Federal Highway Administration Traffic Noise Model version 2.5.

The model calculated noise output is the one-hour L_{EQ}, and is the equivalent CNEL with the use of 8 to 10 percent of the average daily traffic [Caltrans Technical Noise Supplement Nov, 2009] (six to eight percent traffic may be converted by adding two to the one-hour L_{EQ} for the equivalent CNEL).

3.4 SUMMARY OF SITE-SPECIFIC FEATURES INCLUDED IN CADNA MODEL

The CADNA models (including both the existing and proposed conditions models) include the existing and modified site topography, and existing and planned on-site structures. The model takes into consideration that some of the structures provided noise shielding to other areas of the site. Please refer to Figure 1-3 for a view of where on-site structures will be located.

4.0 EXISTING NOISE ENVIRONMENT

As described in Section 2, the dominant noise source at the project site is traffic on the adjacent streets. An on-site inspection and traffic noise measurements were completed on the afternoon of April 3, 2009. Two "one-hour" equivalent measurements were made: one approximately in the middle of the project side adjacent to El Camino Real (M1); and the second one approximately in the middle of the project side adjacent to Del Mar Heights Road (M2). The measurement locations are shown as M1 and M2 on Figure 1-2. The microphone was placed at approximately five feet above the existing project site grade for both measurements.

4.1 SITE NOISE MEASUREMENTS AND COMPARISON CALCULATIONS

Traffic volumes for both roadways were recorded for automobiles, medium-size trucks, and large trucks during the measurement period. After a continuous 15-minute sound level measurement, no changes in the L_{EQ} were detectable and results were recorded. The measured noise level and related weather conditions are found in Table 4-1. The traffic counts for the 15-minute measurement and one-hour equivalent volumes are shown in Table 4-2.

Table 4-1
ON-SITE NOISE MEASUREMENT CONDITIONS AND RESULTS

Date	April 3, 2009
Time	1:30 p.m. – 2:45 p.m.
Conditions	Clear skies, winds from the west at 6 to 8 mph, temperature in the low 60s with moderate humidity
Measured Noise Level	
Location M1	67.4 dBA L_{EQ}
Location M2	66.3 dBA L_{EQ}

Table 4-2
TRAFFIC COUNTS

Roadway	Traffic	Autos	MT[1]	HT[2]
El Camino Real	15-minute Count	225	6	0
	Hourly	900	24	0
Del Mar Heights	15-minute Count	630	6	0
	Hourly	2520	24	0

[1] Medium Trucks (double-tires/two axles)
[2] Heavy Trucks (three or more axels)

4.2 CALCULATED NOISE LEVEL

The CADNA model generated traffic noise levels are shown in Table 4-3 with the measured noise levels and the difference between the two. A difference of less than two dB is considered sufficiently accurate without an adjustment.

Table 4-3
CALCULATED VERSUS MEASURED TRAFFIC NOISE DATA

Calibration Receiver Position	Calculated	Measured	Difference	Correction
El Camino Real	68.4 dBA L_{EQ}	67.4 dBA L_{EQ}	1.0 dB	None applied
Del Mar Heights	66.0 dBA L_{EQ}	66.3 dBA L_{EQ}	0.3 dB	None applied

5.0 IMPACTS

The City of San Diego Zoning Code includes property line noise limits and the General Plan includes noise standards for proposed land uses. These applicable standards are presented in the City of San Diego California Environmental Quality Act Significance Determination Thresholds and are utilized below to determine if the future noise levels would result in significant impacts.

5.1 SIGNIFICANCE THRESHOLDS

5.1.1 Construction Noise

According to the City's Significance Determination Thresholds, construction noise impacts may be significant if the project would:

- Result in temporary construction noise that exceeds noise levels identified in the City's Municipal Code 59.0404, including result in temporary construction noise level that exceeds an average sound level greater than 75 dBA L_{EQ} at a sensitive receptor during the 12-hour period from 7:00 a.m. to 7:00 p.m.

5.1.2 Operational Noise

Stationary Noise

According to the City's Significance Determination Thresholds, noise impacts may be significant if the project would:

- Generate noise that would expose surrounding properties to noise exceeding the City's Noise Ordinance, which allows noise levels up to (1) 55/50/45 dBA (7:00 a.m. to 7:00 p.m./7:00 p.m. to 10:00 p.m./10:00 p.m. to 7:00 a.m.) along the northern property line where multi-family is adjacent to multi-family; (2) 60/55/52.5 dBA where proposed multi-family is adjacent to commercial to the east and west; (3) 65/60/60 dBA along the southern property lines where commercial is adjacent to commercial; and (4) 57.5/52.5/50 dBA where commercial is adjacent to a single-family residence to the southeast.

Transportation Noise

Off-site Transportation Noise

According to the City's Significance Determination Thresholds, noise impacts may be significant if the project would:

- Increase ambient noise levels by more than 3 CNEL

On-Site Transportation Noise

According to the City's Significance Determination Thresholds, noise impacts may be significant if the project would:

- Expose on-site uses, or increase traffic noise in surrounding areas, to noise levels in excess of 65 CNEL at residences, hospitals, and care facilities; 70 CNEL at offices and professional uses; and 75 CNEL at commercial or outdoor spectator sport uses
- Expose habitable areas to interior noise levels in excess of 45 CNEL
- Expose office space to interior noise levels in excess of 50 CNEL

5.2 CONSTRUCTION NOISE IMPACTS

Construction activities can be roughly divided into seven phases, with these phases potentially exhibiting some overlap depending on specific locations and timing; rough grading, utilities excavation, foundation preparation, building construction, finish grading, paving, and landscaping. Site construction would entail the use of heavy equipment throughout the site for the full term of construction. While specific construction plans are not available, it is assumed that both an excavator (generating average noise levels of 80.7 dBA at 50 feet) and a loader (generating average noise levels of 79.1 dBA at 50 feet) would be used during the initial excavation. Other typical equipment for the proposed type of construction is assumed to include: small dozer, , backhoe loader(s), compactor(s), water truck, boom concrete pumper, trencher(s), forklifts, light mobile cranes or sky lifts, grader, paver, compactor, skid steer(s), mini excavator, trencher, and a variety of specific tools including welders, metal shears, and light hand tools. As indicated in the Geotechnical Report (Geotechnical Investigations, Inc. 2008), soils underlying the site include clay and silty soils and blasting or breaking would not be necessary to excavate for the underground parking structures. The equipment necessary for the construction phase of the proposed project would be typical of construction equipment used for general office/commercial construction. Construction hours would be limited to the hours and days indicated in the City of San Diego Municipal Code.

The loudest construction noise impact would occur during rough grading where the equipment may have a maximum noise levels at 50-feet of 85 to 90 dBA. At the closest off-site residence distance across Del Mar Heights Road this would be reduced to well below 75 dBA due to distance attenuation.

If an excavator and a loader are assumed to be working in the northeastern corner of Block C for the excavation of the subterranean parking structure, the construction noise impacts of Phase 3 to potential on-site residences at the northwest end of Block B might exceed 75 dBA L_{EQ} (12-hour), although the approximate level calculated with the Federal Construction Noise Levels and Ranges (Appendix A) is 74.7 dBA. This is based on the approximate 100 feet of separation between on-site residences and the impact footprint for Phase 3. As a result, construction noise impacts during construction of Phase 3 could be potentially significant.

5.3 OPERATIONAL NOISE IMPACTS

5.3.1 Stationary Source Impacts

The proposed improvements would introduce several operational stationary noise sources, which would be regulated by the Municipal Code property line noise limits. The specific noise generators could include refrigeration and freezer condensers (grocery store and restaurants), trash compactors, forklifts, delivery trucks, restaurant kitchen fans, HVAC, and parking lot traffic. Specific planning information is not currently available for this equipment; however, equipment examples would include a 100-ton capacity Carrier 30GTN100 (large building cooling system), which has an average sound power rating of 100 dBA, or a backup alarm with a typical 30-second per hour operational time and an approximate sound power of 109 dBA. Assuming a break in the line of sight due to parapet walls or intervening structures, noise generated by the building cooling system would be reduced to 45 dBA L_{EQ} at 120 feet. The backup alarm would produce an hourly average sound level of approximately 39 dBA L_{EQ}. As such, it is assumed that these sources would rarely create noise impacts to receivers over 120 feet from the noise source and are highly unlikely to impact any off-site areas across roadways. The office use directly to the south of the site (Neurocrine) would not be significantly impacted considering the distance from proposed structures to the property line, type of proposed uses on site, and the adjacent uses are commercial (65/60/60 dBA thresholds). Residences are not noise generators, and the parking structure and residences would be approximately 50 feet from the property line. Therefore, stationary source noise impacts to off-site receptors would be less than significant.

Because the proposed project is a mixed-used development, residential uses would be in close proximity to commercial uses and could be exposed to noise generated by on-site stationary noise sources. Due to the close proximity of these proposed uses, there is potential for on-site stationary sources to exceed the noise limits of the Noise Ordinance. Therefore, stationary source noise impacts to on-site sensitive receptors would be potentially significant.

5.3.2 Transportation Noise Impacts

Roadway Traffic Conditions and Improvements

Off-site traffic improvements would occur as part of project development. The off-site traffic improvements that are proposed to be implemented by the project would occur within the existing developed right-of-way and some would involve minor road widening (maximum of approximately four feet); however, none would result in increased traffic noise levels that would exceed traffic noise significance thresholds at noise-sensitive uses or exterior useable areas. The traffic noise impacts associated with these improvements would be less than significant.

Table 5-1 provides the Existing, Existing Plus Project (Buildout), Near-term without Project, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project traffic volumes for Del Mar Heights Road, El Camino Real, and High Bluff Drive in the project vicinity. Traffic volumes were taken from the Traffic Impact analysis prepared for the project (USA 2012).

Table 5-1
TRAFFIC VOLUMES ON PROJECT AREA ROADWAYS

	Roadway	Existing	Existing Plus Project (Buildout)	Near-term without Project	Near-term With Project (Phase 1)	Near-term With Project (Phases 1 and 2)	Near-term With Project Buildout	Long-term Cumulative (Year 2030) With Project
Del Mar Heights Rd								
1	I-5 Northbound Ramps to High Bluff Drive	51,625	62,140	54,775	58,631	61,721	65,290	62,315
2	High Bluff Drive to Third Avenue	37,910	50,042	40,648	45,098	48,664	52,781	54,902
3	Third Avenue to First Avenue	37,910	48,964	40,648	44,109	47,951	51,702	53,824
4	First Avenue to El Camino Real	37,910	48,964	40,648	43,120	47,951	51,702	53,824
5	El Camino Real to Carmel Country Road	32,674	39,953	33,654	36,324	38,463	41,473	46,189
El Camino Real								
6	Quarter Mile Drive to Del Mar Heights Road	14,925	16,543	15,373	15,966	16,441	16,990	30,618
7	Del Mar Heights Road to Townsgate Drive	14,731	10,123	17,014	18,497	19,686	22,406	28,392
8	Townsgate Drive to High Bluff Drive	15,425	18,930	16,662	17,947	18,977	20,167	29,505
9	High Bluff Drive to Valley Centre Drive	19,364	21,790	21,035	21,925	22,638	23,461	38,046
High Bluff Drive								
10	Del Mar Heights Road to El Camino Real	9,842	10,651	10,137	10,434	10,672	10,946	12,509

Off-site Transportation Noise Impacts

Off-site traffic noise contours were developed for the Existing Conditions, Existing Plus Project (Buildout), Near-term Without Project, Near-term with Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) With Project traffic scenarios using CADNA modeling software to show estimated traffic noise levels at off-site locations in the project vicinity. The off-site traffic noise contours for these conditions are illustrated in the following figures:

- Figure 5-1: Off-site Traffic Noise Contours – Existing Conditions
- Figure 5-2: Off-site Traffic Noise Contours – Existing Conditions Plus Project Buildout
- Figure 5-3: Off-site Traffic Noise Contours – Near-term Near-term Without Project
- Figure 5-4: Off-site Traffic Noise Contours – Near-term With Project Phase 1
- Figure 5-5: Off-site Traffic Noise Contours – Near-term With Project Phases 1 and 2
- Figure 5-6: Off-site Traffic Noise Contours – Near-term With Project Phases 1, 2, and 3
- Figure 5-7: Off-site Traffic Noise Contours – Long-term Cumulative (Year 2030) With Project

In order for a significant three CNEL traffic noise increase to occur as a result of a project, a project would have to double the amount of traffic on a roadway maintaining full speed (if speed is less than the existing speed, then noise would not reach the three-dBA/CNEL increase). As shown in Figures 5-1 through 5-7, traffic noise levels would not exceed 65 CNEL at exterior useable areas in the project vicinity. Project construction and operation would not double the amount of traffic on any roadway. Therefore, project off-site traffic noise impacts would be less than significant.

Traffic/Land Use – Noise Compatibility Impacts

As indicated in the Noise Element (City 2008), the Land Use-Noise Compatibility Guidelines were established for “evaluating land use noise compatibility when reviewing proposed land use development projects.”

As indicated in the existing conditions, noise generated in the project vicinity is primarily from traffic noise; other off-site noise sources have a negligible contribution to noise levels at nearby off-site or on-site residential. On site, there is a potential for the proposed mixed uses to have land use-noise compatibility issues. Thus, the on-site land use compatibility noise analysis focuses on traffic noise at the project site and compatibility between proposed uses.

<u>Off-site Land Use - Noise Compatibility Impacts to Proposed Uses</u>

As shown in Table 5-1, the buildout (Long-term Cumulative [Year 2030] With Project) scenario would experience more overall traffic compared to the Existing Plus Project and Near-term With Project scenarios. Thus, the buildout traffic volumes are utilized in the noise impact analysis below to insure the worst-case scenario is analyzed for on-site impacts. However, on-site traffic noise contours were developed for the Existing Plus Project (Buildout), Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and

Long-term Cumulative (Year 2030) With Project traffic scenarios using CADNA modeling software to show estimated traffic noise levels within the project site. The on-site noise contours for these conditions are illustrated in Figures 5-8 through 5-12:

- Figure 5-8: On-site Traffic Noise Contours – Existing Conditions Plus Project Buildout
- Figure 5-9: On-site Traffic Noise Contours – Near-term With Project Phase 1
- Figure 5-10: On-site Traffic Noise Contours – Near-term With Project Phases 1 and 2
- Figure 5-11: On-site Traffic Noise Contours – Near-term With Project Phases 1, 2, and 3
- Figure 5-12: On-site Traffic Noise Contours – Long-term Cumulative (Year 2030) With Project

To determine the compatibility impacts of traffic noise to the proposed uses, a series of modeling receivers were identified. This noise modeling focused on residential receivers, as the residential receivers are located along the roadway with the most traffic (Del Mar Heights Road), have the lowest traffic noise threshold (65 CNEL). The noise receiver modeling locations were placed along the periphery edge of the buildings with views of the major roadways at twenty-five feet above the approximate ground elevation of the building. This is intended to take into account an interior first-floor height of 15 feet, five feet between stories for HVAC and utilities, and another five feet to represent the approximate height of a person standing in a second-floor residence. These residential receiver points R 01 to R 84 were numbered in clockwise direction starting from the western side of the site and are shown on Figure 5-13, Residential Receiver Analysis Locations. Table 5-2 below shows the future noise level at the proposed residential building facades.

Table 5-2
UNMITIGATED BUILDOUT NOISE CONDITIONS*

Receiver	CNEL (dBA*)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)	Receiver	CNEL (dBA)
R 01	55.1	R 22	45.3	R 43	55.5	R 64	**69.2**
R 02	54.6	R 23	57.2	R 44	50.3	R 65	**69.2**
R 03	56.6	R 24	**61.0**	R 45	42.7	R 66	**67.7**
R 04	**60.8**	R 25	**66.7**	R 46	49.8	R 67	**63.3**
R 05	**61.8**	R 26	**69.5**	R 47	59.6	R 68	**63.1**
R 06	**60.8**	R 27	**69.4**	R 48	**64.8**	R 69	**64.1**
R 07	52.8	R 28	**69.4**	R 49	**66.4**	R 70	**67.5**
R 08	49.5	R 29	**67.5**	R 50	**67.1**	R 71	**69.3**
R 09	58.2	R 30	**67.5**	R 51	**67.0**	R 72	**69.9**
R 10	**63.4**	R 31	**69.5**	R 52	**66.3**	R 73	**69.8**
R 11	**67.7**	R 32	**69.5**	R 53	**62.1**	R 74	**69.0**
R 12	**68.5**	R 33	**69.5**	R 54	52.5	R 75	**69.5**
R 13	**68.8**	R 34	**68.5**	R 55	58.5	R 76	**70.2**

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Off-site Traffic Noise Contours - Existing Conditions

ONE PASEO

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Environmental Planning

Figure 5-1

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Off-site Traffic Noise Contours - Existing Conditions Plus Project Buildout

ONE PASEO

HELIX
Environmental Planning

Figure 5-2

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Off-site Traffic Noise Contours – Near-term Without Project

ONE PASEO

Figure 5-3

HELIX Environmental Planning

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Off-site Traffic Noise Contours – Near-term With Project Phase 1

ONE PASEO

HELIX Environmental Planning

Figure 5-4

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Off-site Traffic Noise Contours – Near-term With Project Phases 1 and 2

ONE PASEO

Figure 5-5

HELIX Environmental Planning

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Off-site Traffic Noise Contours – Near-term With Project Phases 1, 2 and 3

ONE PASEO

Figure 5-6

HELIX Environmental Planning

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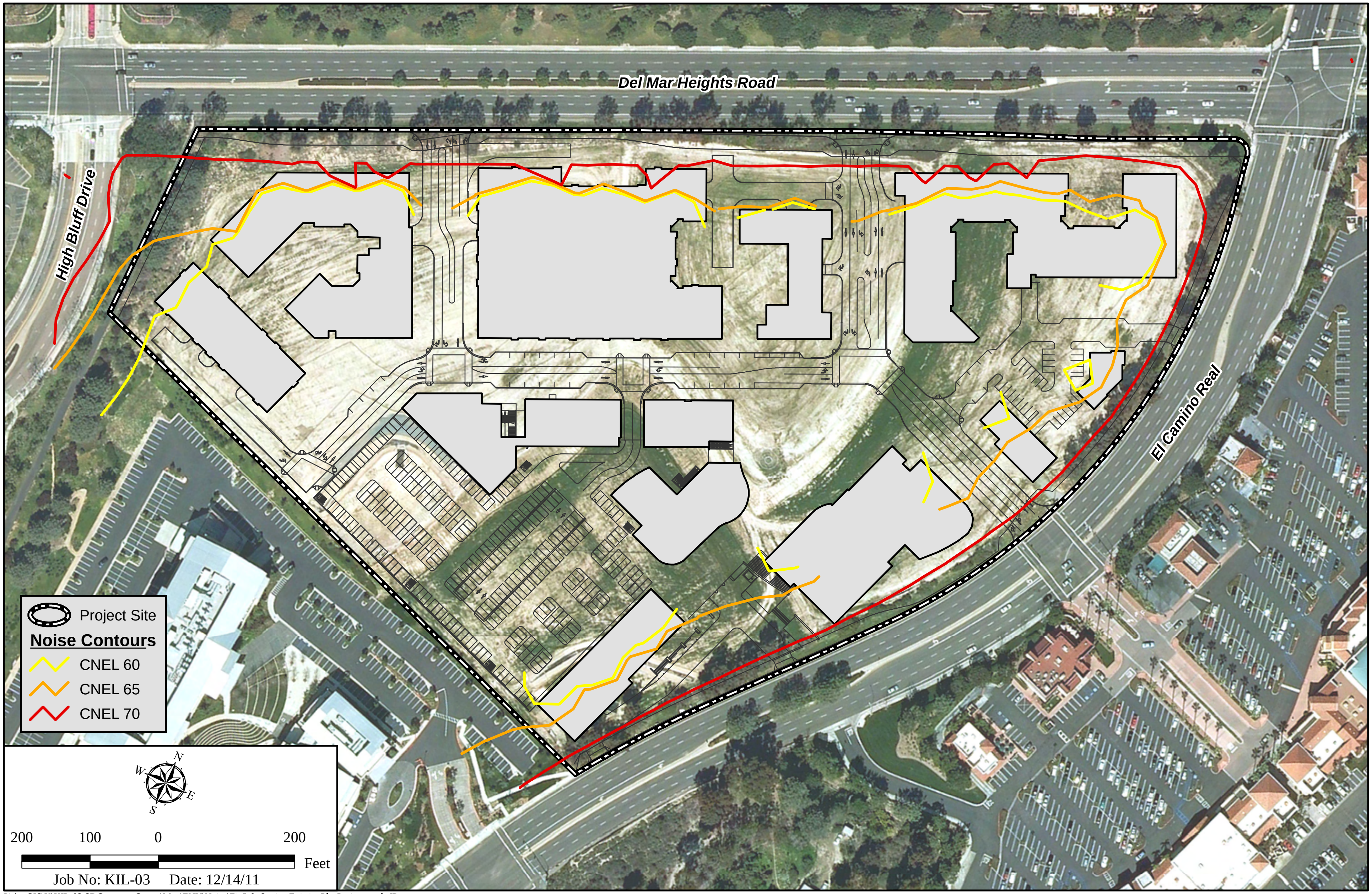
Off-site Traffic Noise Contours – Long-term Cumulative Plus Project Buildout

ONE PASEO

Figure 5-7

HELIX Environmental Planning



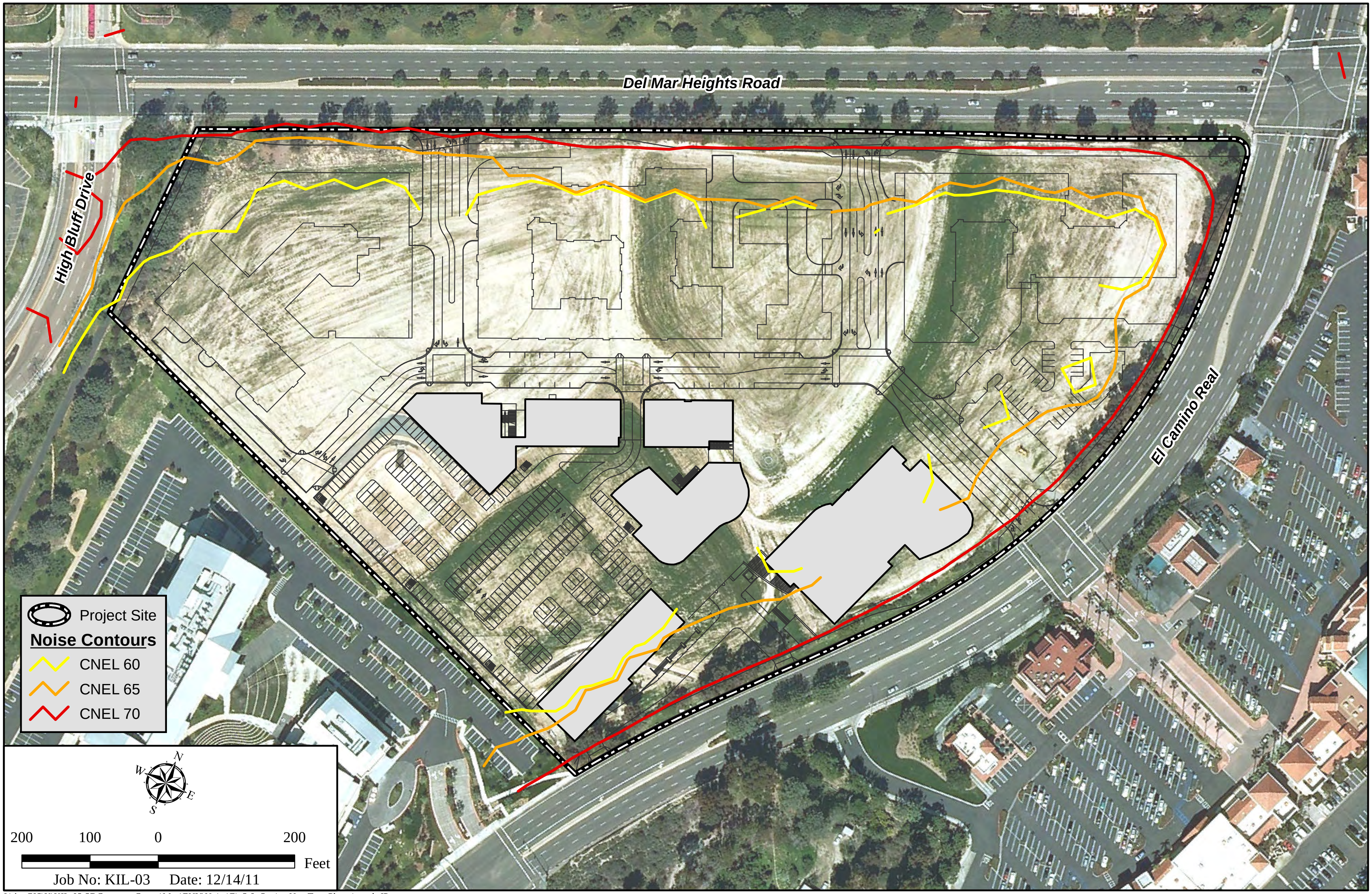
I:\ArcGIS\K\KIL-03 SDCorporateCenter\Map\ENV\Noise\Fig5-8_Onsite_ExistingPlusProject.mxd -JP

On-site Traffic Noise Contours - Existing Conditions Plus Project Buildout

ONE PASEO

Figure 5-8

HELIX Environmental Planning



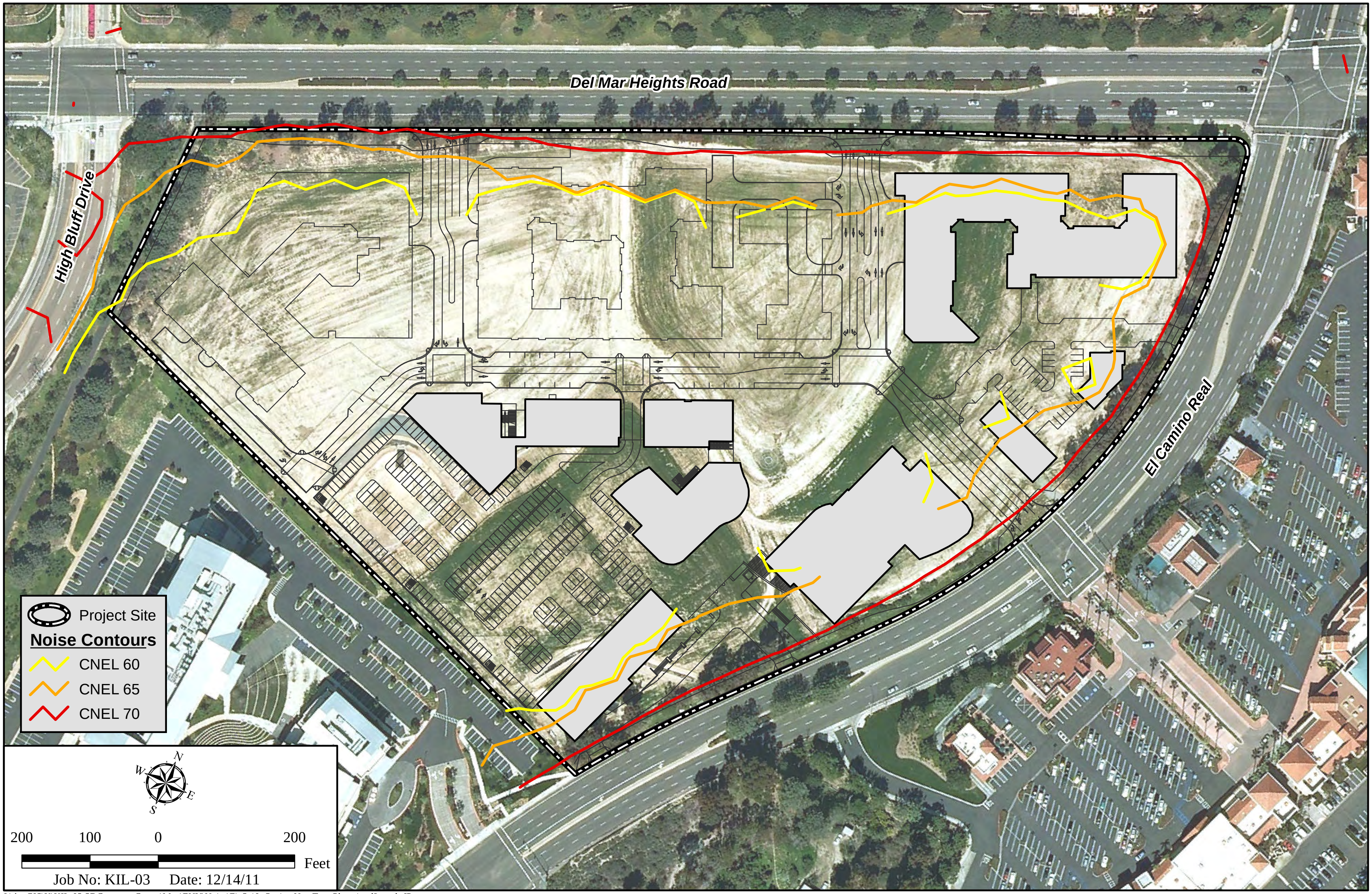
I:\ArcGIS\K\KIL-03 SDCorporateCenter\Map\ENV\Noise\Fig5-9_Onsite_NearTermPhase1.mxd -JP

On-site Traffic Noise Contours – Near-term With Project Phase 1

ONE PASEO

Figure 5-9

HELIX
Environmental Planning



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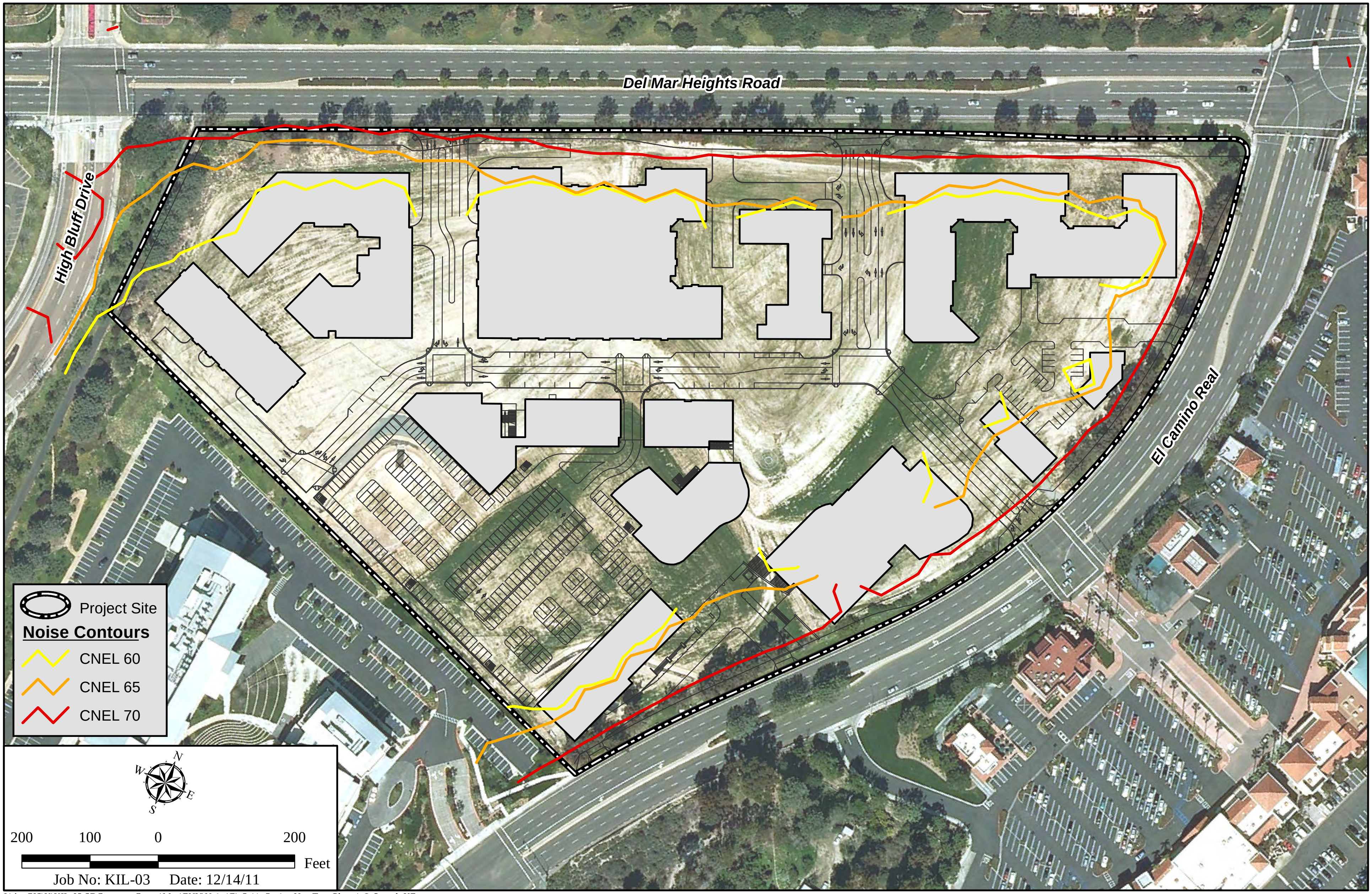
On-site Traffic Noise Contours – Near-term With Project Phases 1 and 2

ONE PASEO

Figure 5-10

HELIX Environmental Planning



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On-site Traffic Noise Contours – Near-term With Project Phases 1, 2 and 3

ONE PASEO

Figure 5-11

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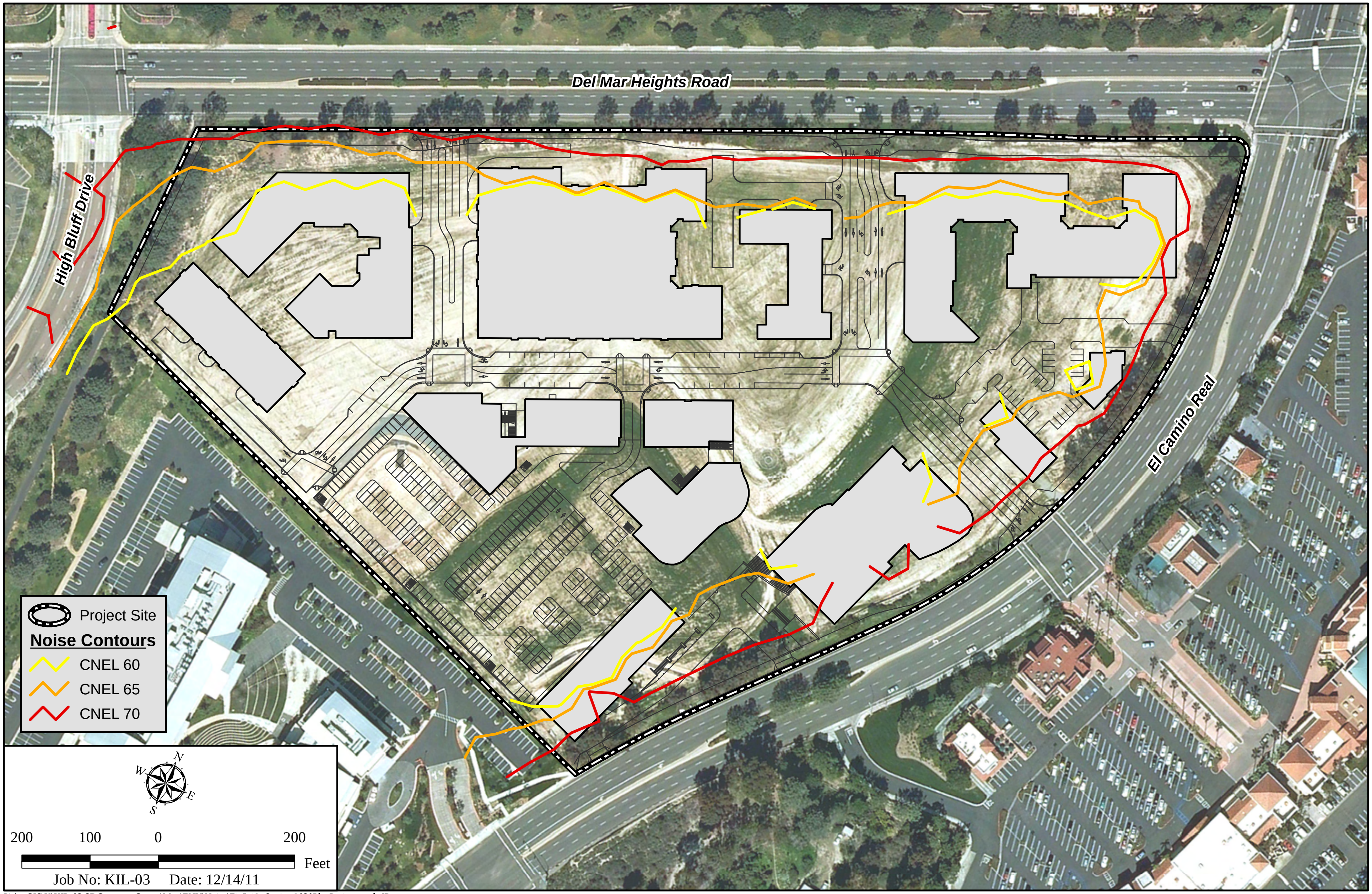
Environmental Planning



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On-site Traffic Noise Contours – Long-term Cumulative Plus Project Buildout

ONE PASEO

Figure 5-12

HELIX Environmental Planning

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Residential Receiver Analysis Locations

ONE PASEO

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Figure 5-13

Table 5-2 (cont.) UNMITIGATED BUILDOUT NOISE CONDITIONS*							
Receiver	**CNEL (dBA*)**	**Receiver**	**CNEL (dBA)**	**Receiver**	**CNEL (dBA)**	**Receiver**	**CNEL (dBA)**
R 14	**69.2**	R 35	**65.2**	R 56	59.0	R 77	**68.9**
R 15	**69.1**	R 36	**64.0**	R 57	57.5	R 78	**66.6**
R 16	**67.5**	R 37	58.1	R 58	56.5	R 79	**63.8**
R 17	**61.7**	R 38	42.5	R 59	56.7	R 80	**62.1**
R 18	58.1	R 39	55.1	R 60	59.8	R 81	**61.4**
R 19	53.4	R 40	55.2	R 61	**66.4**	R 82	**61.4**
R 20	50.2	R 41	56.6	R 62	**69.3**	R 83	58.8
R 21	44.3	R 42	56.5	R 63	**69.2**	R 84	**61.5**

Table 5-2 and Figure 5-13 show future traffic noise levels at the proposed project building facades assuming no external mitigation. As shown, several residential receivers would be located in areas experiencing an exterior noise level greater than 60 CNEL. These residences could have interior noise levels that exceed 45 CNEL considering that standard construction leads to an approximate 15-dBA/CNEL reduction. Thus, residences are not considered compatible with the future traffic noise levels on site along the perimeter of the site (Figures 5-7 through 5-10) and the proposed project would result in a potentially significant land use-noise compatibility impact.

Proposed exterior usable areas associated with residences would not be exposed to noise levels exceeding the 65 CNEL threshold, as the open space areas used to meet the open space requirements would be designed to be located outside the 65 CNEL contour (Figure 5-13). Thus, proposed residential outdoor usable areas would have a less than significant impact related to land use-noise compatibility.

The project does not include exterior usable office or retail space within areas exceeding 75 CNEL, respectively. However, the project includes commercial office space located within the 65 CNEL or higher contour, and thus it would potentially be exposed to interior noise levels above the 50 CNEL land use-noise compatibility threshold (considering the 15-dBA/CNEL standard construction attenuation). Thus, proposed commercial uses would be considered to be significantly impacted.

<u>On-site Land Use - Noise Compatibility Impacts Between Proposed Uses</u>

As discussed above, the project would include several new noise sources. These new noise sources could pose land use–noise compatibility issues within the project site between residential/hotel uses and commercial uses. Specifically, proposed on-site grocery stores, retail, restaurants, and nighttime entertainment venues may have a noise impact to proposed residences or hotel uses where these uses occur adjacent to each other or are stacked residential/hotel over commercial. These impacts would likely be from HVAC systems and other types of air movement systems such as restaurant kitchen fans (grease fans), with noticeable impacts from amplified music systems. Since building plans and specific uses/tenants have not yet been developed or identified, it is not feasible to accurately analyze the potential noise compatibility issues. It is apparent, however that without proper planning there is potential for the areas with commercial and residential uses stacked or adjacent to each other to experience significant compatibility noise impacts.

5.4 IMPACT SUMMARY

- While construction noise at surrounding properties would be in compliance with the Municipal Code, construction of Phase 3 while Phase 2 is occupied would result in noise levels at on-site residencies greater than the 75 dBA average required by the City of San Diego Municipal Code. Thus, construction noise impacts are considered potentially significant and mitigation would be required.

- While the project's stationary noise impacts to off-site properties would be in compliance with the Municipal Code, on-site uses may exceed the Municipal Code noise limits. This impact would be considered potentially significant and would require mitigation.

- Project off-site transportation noise impacts would be less than significant.

- Noise impacts from the surrounding environment (roadways) to the proposed residential and commercial uses would be potentially significant per the land use-noise compatibility guidelines. Mitigation would be required.

- The mix of commercial and residential/hotel uses on site would potentially result in the exceedance of the Land Use – Noise Compatibility Guidelines. These impacts would be considered potentially significant and would require mitigation.

Project off-site transportation noise impacts would be less than significant.

6.0 MITIGATION

6.1 CONSTRUCTION NOISE MITIGATION

As indicated in Section 5.3, project on-site construction noise impacts could be significant if Phase 3 is constructed when residential units in Phase 2 are occupied. As such, the following mitigation shall be implemented to reduce this potential impact to below a level of significance:

> During construction of Phase 3, noise attenuation shall be provided sufficient to comply with the Noise Ordinance. Potential attenuation measures include, but are not limited to, use of sound walls, sound blankets, noise attenuation devices/modifications to construction equipment, and use of quieter equipment. As one option, a temporary 12-foot-high noise barrier[1] could be constructed 50-feet in both (north-south) directions along Third Avenue from the point(s) where the proposed subterranean parking garage is within 100 feet of occupied residences.

Construction impacts of off-site properties would be less than significant and no mitigation for construction impacts to off-site residences would be required.

6.2 OPERATIONAL NOISE MITIGATION

Stationary Noise Mitigation

While the proposed project would not have stationary noise impacts at external property lines, the potential on-site uses may experience noise in exceedance of the Municipal Code stationary noise source thresholds. Analysis of the on-site noise impacts cannot be completed at this time as specific building plans have not yet been developed for analysis. Mitigation to control the potential residential and commercial noise sources is always feasible for normal commercial and residential sources with building plan analysis and planning prior to construction. Prior to issuance of the building permits, an on-site noise impact study shall be completed and the appropriate measures shall be incorporated into the project design to ensure compliance with Municipal Code noise limits.

6.3 PROJECT OFF-SITE TRANSPORTATION NOISE MITIGATION

As indicated in Section 5.3, project traffic generated on roadways would lead to a less than significant traffic noise impact and no mitigation is required.

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[1] The normal, minimum noise reduction of a barrier which fully breaks the line of site between the noise source and the noise receiver is 5 dBA. Therefore the noise impact would easily be reduced to well below 75 dBA L_{EQ} (12-hour), if it would otherwise be slightly above.

6.4 ON-SITE TRANPORTATION NOISE/LAND USE – NOISE COMPATIBILITY MITIGATION

Off-site Land Use - Noise Compatibility Impacts to Proposed Uses

Where residential exterior noise levels are in exceedance of 60 CNEL and commercial exterior noise levels are in exceedance of 65 CNEL, noise levels may exceed allowable interior standards after the 15 CNEL exterior-to-interior reduction assumed to be provided by standard building construction. However, feasible exterior-to-interior noise control elements may be incorporated in the building design to control interior noise for any commercial or residential interior space. Mitigation for interior noise is provided by analysis of the planned building features for the usable interior space. This information must include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analyst can determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are too high, the analyst may require enhanced glazing or even an enhanced wall design. Glazing is available with Sound Transmission Control (STC) ratings from a normal low of STC 22 to readily-available STC 40, and even up to STC 60 for extreme noise levels. Likewise, a typical wall may have STC ratings as low as 34, which can be raised as high as STC 60.

It is important to recognize in the planning of residential structures that simple air conditioning does not fulfill the building code specifications for forced fresh air ventilation. The International Building Code 2006 states "Section 1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4 or mechanical ventilation in accordance with the International Mechanical Code."

As the efficacy of the noise attenuation measures in this report is unknown, the mitigation to be provided would require an exterior-to-interior noise analysis for the residential and commercial spaces once building plans become available. This analysis shall show what measures are required to reduce interior residential space to 45 CNEL and interior commercial office space to 50 CNEL. These measures shall be required to be incorporated into the project design prior to issuance of building permits.

On-site Land Use - Noise Compatibility Impacts Between Proposed Uses

As indicated in the impact discussion above, there is potential for operation of retail and commercial uses on site to cause internal project exceedance of the land use-noise compatibility guidelines at the proposed residences and hotel. To mitigate this significant land use-noise compatibility impact, an interior noise analysis of proposed residences shall be completed prior to building permit issuance to determine the appropriate measures that shall be incorporated into building design to ensure residential interior noise levels would be below 45 CNEL. These land use-noise compatibility measures may include the following:

- No routing commercial air handling ducts in or adjacent interior living space walls without specific plans to address isolation;

- No direct mounting of commercial HVAC systems over interior living areas without specific plans to address isolation;
- Care in mounting clusters of residential HVAC systems over residential areas;
- No routing of coolant or large water lines including HVAC water for commercial services in walls adjacent living areas without specific plans to address isolation;
- No operable windows looking directly at any rooftop HVAC systems in adjacent buildings;
- No elevator shafts directly adjacent living quarters without specific plans to address isolation;
- No use of commercial spaces for nighttime entertainment, which have a common floor ceiling to a living space;
- Limitations on the use of exterior amplified music systems associated with entertainment such as prohibiting exterior amplified music systems in areas directly adjacent to or below on-site residences[2]; and
- Strict enforceable commercial lease agreements to control interior and exterior noise to limit impacts to residential areas.

[2] This excludes temporary outside amplification systems use for a short-term special event conducted with a separate City special event permit.

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7.0 CONCLUSION

No on-site to off-site noise impacts are anticipated from either the construction or operation of the proposed project. In addition, the project would not generate substantial traffic noise on exterior roadways. However, construction noise generated by Phase 3 when residential units in Phase 2 are occupied would result in potentially significant on-site construction noise impacts. In addition, buildout traffic conditions would result in noise levels on site that exceed the Land Use – Noise Compatibility thresholds for residential and commercial uses. Also, proposed on-site uses could generate stationary noise that would exceed the Municipal Code noise limits and the Land Use – Noise Compatibility Guidelines. These impacts would be considered significant and would require mitigation.

Proposed mitigation would reduce potential on-site impacts to less than significant levels. A temporary noise wall would be constructed on site in between the proposed Phase 3 construction and occupied Phase 2 units to reduce construction noise to less than significant levels. To mitigate land use-noise compatibility impacts to residences and commercial uses from roadway noise enhanced building materials could be used. An exterior-to-interior noise analysis would be required, and the measures determined to be needed to reduce interior noise levels shall be incorporated into the project design prior to the issuance of building permits. To mitigate for potential on-site residential/hotel land-use compatibility impacts, an interior noise analysis of building plans shall be completed and appropriate measures shall be required, which would be related to HVAC, elevator, amplification devices, and specific lease agreements. To ensure no on-site noise impacts would result from the project, an on-site noise impact study shall be completed once building plans have been developed and, if necessary, measures shall be incorporated to ensure that on-site noise impacts are less than significant per the Municipal Code.

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8.0 CERTIFICATION

The findings and recommendations of this acoustical analysis report are based on the information available and are a true and factual analysis of the potential acoustical issues associated with the One Paseo Project located in the City of San Diego, California. This report was prepared by Charles Terry.

Charles Terry, Acoustics and Noise Group Manager

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9.0 REFERENCES

1. 2001 California Building Code, Based on the 1997 Uniform Building Code, Appendix Chapter 12, Division II - Sound Transmission Control, Section 1208 - *Sound Transmission Control*.

2. 2001 California Building Code, Based on the 1997 Uniform Building Code, Chapter 12, Section 1203.3 - Ventilation.

3. 2001 California Noise Insulation Standards, effective 11/01/02, Based on 1997 Uniform Building Code, California Code of Regulations, Title 24.

4. California Department of Transportation, Traffic Noise Model.

5. City of San Diego Noise Element to the General Plan, 2008.

6. City of San Diego California Environmental Quality Act Significance Determination Thresholds, 2011.

7. Harris, Cyril M., Handbook of Acoustical Measurements and Noise Control, 3rd Edition, Acoustical Society of America, 1998.

8. Heeden, Robert A., Compendium of Materials for Noise Control, U.S. Department of Health, Education and Welfare, National Institute for Occupational Safety and Health, November 1978.

9. Irvine, Leland K., Richards, Roy L., Acoustics and Noise Control Handbook for Architects and Builders, Kreiger Publishing Company, 1998.

10. NBS Building Sciences Series 77, Acoustical and Thermal Performance on Exterior Residential Walls, U.S. Department of Commerce/National Bureau of Standards, November 1976.

11. Urban Systems Associated, Traffic Impact Analysis for One Paseo, March 23, 2012.

12. Western Electro-Acoustic Laboratory, Inc., 1711 Sixteenth Street, Santa Monica, California 90404, 213-80-9268, Sound Transmission Loss Vs. Glazing Type, Window Size and Air Filtration , January 1985. The research described in this report was prepared for the California Association of Window Manufacturers, 823 North Harbor Boulevard, Suite E, Fullerton, California 92632, 714-525-7088.

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Appendix A

FHWA CONSTRUCTION NOISE LEVELS AND RANGES

9.0 CONSTRUCTION EQUIPMENT NOISE LEVELS AND RANGES

9.1 Equipment Type Inventory and Related Emission Levels

Noise levels generated by individual pieces of construction equipment and specific construction operations form the basis for the prediction of construction-related noise levels. A variety of information exists related to sound emissions related to such equipment and operations. This data transcends the period beginning in the 1970s thru 2006. This information exists for both stationary and mobile sources and for steady, intermittent, and impulse type generators of noise.

9.1.1 Stationary Equipment

Stationary equipment consists of equipment that generates noise from one general area and includes items such as pumps, generators, compressors, etc. These types of equipment operate at a constant noise level under normal operation and are classified as non-impact equipment. Other types of stationary equipment such as pile drivers, jackhammers, pavement breakers, blasting operations, etc., produce variable and sporadic noise levels and often produce impact-type noises. Impact equipment is equipment that generates impulsive noise, where impulsive noise is defined as noise of short duration (generally less than one second), high intensity, abrupt onset, rapid decay, and often rapidly changing spectral composition. For impact equipment, the noise is produced by the impact of a mass on a surface, typically repeating over time.

9.1.2 Mobile Equipment

Mobile equipment such as dozers, scrapers, graders, etc., may operate in a cyclic fashion in which a period of full power is followed by a period of reduced power. Other equipment such as compressors, although generally considered to be stationary when operating, can be readily relocated to another location for the next operation.

9.2 Sources of Information

Construction-related equipment and operation noise level data may be provided by numerous sources, including suppliers, manufacturers, agencies, organizations, etc. Some information is included in this document, and many web-based links are given for equipment manufacturers.

9.3 Specifics of Construction Equipment and Operation Noise Inventories

Details included in each specific inventory of construction equipment and operation noise emission levels are often variable in terms of how data is represented. Some inventories include ranges of noise levels while others present single numbers for each equipment type. Others provide levels for specific models of each type of construction equipment. Often, different noise descriptors are used, such as L_{Aeq}, L_{max}, L_{10}, sound power level, etc. As such, the array of data does not readily lend itself to being combined into a single table or easily compared. As such, this Handbook attempts to summarize a variety of such inventories and provide links to each, thereby providing the reader with a variety of sources from which to choose the appropriate levels for use in his or her respective analysis.

9.4 Summaries of Referenced Inventories

Included below are examples of several inventories of construction-related noise emission values. These and additional inventories are included on the companion CD-ROM.

9.4.1 RCNM Inventory

Equipment and operation noise levels in this inventory are expressed in terms of L_{max} noise levels and are accompanied by a usage factor value. They have been recently updated and are based on extensive measurements taken in conjunction with the Central Artery/Tunnel (CA/T) Project. Table 9.1 summarizes the equipment noise emissions database used by the CA/T Project. While these values represent the "default" values for use in the RCNM, user-defined equipment and corresponding noise levels can be added.

Table 9.1 RCNM Default Noise Emission Reference Levels and Usage Factors.

Equipment Description	Impact Device?	Acoustical Usage Factor (%)	Spec. 721.560 L_{max} @ 50 feet (dBA, slow)	Actual Measured L_{max} @ 50 feet (dBA, slow) (Samples Averaged)	Number of Actual Data Samples (Count)
All Other Equipment > 5 HP	No	50	85	N/A	0
Auger Drill Rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar Bender	No	20	80	N/A	0
Blasting	Yes	N/A	94	N/A	0
Boring Jack Power Unit	No	50	80	83	1
Chain Saw	No	20	85	84	46
Clam Shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete Batch Plant	No	15	83	N/A	0
Concrete Mixer Truck	No	40	85	79	40
Concrete Pump Truck	No	20	82	81	30
Concrete Saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill Rig Truck	No	20	84	79	22
Drum Mixer	No	50	80	80	1
Dump Truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flat Bed Truck	No	40	84	74	4
Front End Loader	No	40	80	79	96
Generator	No	50	82	81	19
Generator (<25KVA, VMS Signs)	No	50	70	73	74
Gradall	No	40	85	83	70

Grader	No	40	85	N/A	0
Grapple (on backhoe)	No	40	85	87	1
Horizontal Boring Hydraulic Jack	No	25	80	82	6
Hydra Break Ram	Yes	10	90	N/A	0
Impact Pile Driver	Yes	20	95	101	11
Jackhammer	Yes	20	85	89	133
Man Lift	No	20	85	75	23
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	212
Pavement Scarifier	No	20	85	90	2
Paver	No	50	85	77	9
Pickup Truck	No	40	55	75	1
Pneumatic Tools	No	50	85	85	90
Pumps	No	50	77	81	17
Refrigerator Unit	No	100	82	73	3
Rivit Buster/Chipping Gun	Yes	20	85	79	19
Rock Drill	No	20	85	81	3
Roller	No	20	85	80	16
Sand Blasting (single nozzle)	No	20	85	96	9
Scraper	No	40	85	84	12
Sheers (on backhoe)	No	40	85	96	5
Slurry Plant	No	100	78	78	1
Slurry Trenching Machine	No	50	82	80	75
Soil Mix Drill Rig	No	50	80	N/A	0
Tractor	No	40	84	N/A	0
Vacuum Excavator (Vac-Truck)	No	40	85	85	149
Vacuum Street Sweeper	No	10	80	82	19
Ventilation Fan	No	100	85	79	13
Vibrating Hopper	No	50	85	87	1
Vibratory Concrete Mixer	No	20	80	80	1
Vibratory Pile Driver	No	20	95	101	44

Warning Horn	No	5	85	83	12
Welder/Torch	No	40	73	74	5

For each generic type of equipment listed in Table 9.1, the following information is provided:

- an indication as to whether or not the equipment is an impact device;
- the acoustical usage factor to assume for modeling purposes;
- the specification "Spec" limit for each piece of equipment expressed as an L_{max} level in dBA "slow" at a reference distance of 50 foot from the loudest side of the equipment;
- the measured "Actual" emission level at 50 feet for each piece of equipment based on hundreds of emission measurements performed on CA/T work sites; and
- the number of samples that were averaged together to compute the "Actual" emission level.

A comparison of the "Spec" emission limits against the "Actual" emission levels reveals that the Spec limits were set, in general, to realistically obtainable noise levels based on the equipment used by contractors on the CA/T Project. When measured in the field, some equipment such as pile drivers, sand blasting, demolition shears, and pumps tended to exceed their applicable emission limit. As such, these noisy devices needed to have some form of noise mitigation in place in order to comply with the Spec emission limits. Other equipment, such as clamshell shovels, concrete mixer trucks, truck-mounted drill rigs, man-lifts, chipping guns, ventilation fans, pavers, dump trucks, and flatbed trucks, easily complied. Therefore, the Spec emission limits for these devices could have been reduced somewhat further. It is recommended that the user review the RCNM User's Guide contained in Appendix A for detailed guidance regarding application of values contained in Table 9.1.

9.4.2 FHWA Special Report Inventories

Appendix A of the 1977 Handbook provides tables of construction equipment noise levels and ranges. The majority of the data were provided by the American Road Builders Association. These data were taken during a 1973 survey in which member contractors were asked to secure readings of noise exposure to operators of various types of equipment. Additionally, the contractors were asked to take readings at 50 feet from the machinery. These 50-foot peak readings are provided in Tables 9.2 through 9.8. Though the data were produced under varying conditions and degrees of expertise, the values are relatively consistent.

Table 9.2 Construction Equipment Noise Levels Based on Limited Data Samples - Cranes.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Northwestern	80D	77	Within 15m 1958 mod
Northwestern	8	84	Within 15m 1940 mod
Northwestern	6	72	Within 15m 1965 mod
American	7260	82	Within 15m 1967 mod
American	599	76	Within 15m 1969 mod
American	5299	70	Within 15m 1972 mod
American	4210	82	Within 15m 1968 mod
Buck Eye	45C	79	Within 15m 1972 mod
Buck Eye	308	74	Within 15m 1968 mod
Buck Eye	30B	73	Within 15m 1965 mod
Buck Eye	30B	70	Within 15m 1959 mod
Link Belt	LS98	76	Within 15m 1956 mod
Manitowoc	4000	94	Within 15m 1956 mod

Grove	RF59	82	Within 15m 1973 mod
Koehr	605	76	Within 15m 1967 mod
Koehr	435	86	Within 15m 1969 mod
Koehr	405	84	Within 15m 1969 mod

Table 9.3 Construction Equipment Noise Levels Based on Limited Data Samples - Backhoes.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Link Belt	4000	92	Within 15m 1971 mod
John Deere	609A	85	Within 15m 1971 mod
Case	680C	74	Within 15m 1973 mod
Drott	40 yr.	82	Within 15m 1971 mod
Koehr	1066	81 & 84	Within 15m 2 tested

Table 9.4 Construction Equipment Noise Levels Based on Limited Data Samples - Front Loaders.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Caterpillar	980	84	Within 15m 1972 mod
Caterpillar	977K	79	Within 15m 1969 mod
Caterpillar	977	87	Within 15m 1971 mod
Caterpillar	977	94	Within 15m 1967 mod
Caterpillar	966C	84	Within 15m 1973 mod
Caterpillar	966C	85	Within 15m 1972 mod
Caterpillar	966	81	Within 15m 1972 mod
Caterpillar	966	77	Within 15m 1972 mod
Caterpillar	966	85	Within 15m 1966 mod
Caterpillar	955L	90	Within 15m ;1973 mod
Caterpillar	955K	79	Within 15m 1969 mod
Caterpillar	955H	94	Within 15m 1963 mod
Caterpillar	950	78 & 80	Within 15m 1972 mod
Caterpillar	950	75	Within 15m 1968 mod
Caterpillar	950	88	Within 15m 1967 mod
Caterpillar	950	86	Within 15m 1965 mod
Caterpillar	944A	80	Within 15m 1965 mod
Caterpillar	850	82	Within 15m 1968 mod
Michigan	75B	90	Within 15m 1969 mod
Michigan	475A	96	Within 15m 1967 mod
Michigan	275	85	Within 15m 1971 mod

Michigan	125	87	Within 15m 1967 mod
Hough	65	82	Within 15m 1971 mod
Hough	60	91	Within 15m 1961 mod
Hough	400B	94	Within 15m 1961 mod
Hough	H90	86	Within 15m 1961 mod
Trojan	3000	85	Within 15m 1956 mod
Trojan	RT	82	Within 15m 1965 mod
Payloader	H50	85	Within 15m 1963 mod

Table 9.5 Construction Equipment Noise Levels Based on Limited Data Samples - Dozers.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Caterpillar	D5	83	Within 15m 1967 mod
Caterpillar	D6	85	Within 15m 1967 mod
Caterpillar	D6	86	Within 15m 1964 mod
Caterpillar	D6	81	Within 15m 1967 mod
Caterpillar	D6B	83	Within 15m 1967 mod
Caterpillar	D6C	82	Within 15m 1962 mod
Caterpillar	D7	85	Within 15m 1956 mod
Caterpillar	D7	86	Within 15m 1969 mod
Caterpillar	D7	84	Within 15m 1969 mod
Caterpillar	D7	78	Within 15m 1970 mod
Caterpillar	D7	78	Within 15m 1972 mod
Caterpillar	D7E	86	Within 15m 1965 mod
Caterpillar	D7E	78	Within 15m 1970 mod
Caterpillar	D7E	84	Within 15m 1973 mod
Caterpillar	D7F	80	Within 15m 1972 mod
Caterpillar	D8	92	Within 15m 1954 mod
Caterpillar	D8	95	Within 15m 1968 mod
Caterpillar	D8	86	Within 15m 1972 mod
Caterpillar	D8H	88	Within 15m 1966 mod
Caterpillar	D8H	82	Within 15m 1972 mod
Caterpillar	D9	85	Within 15m 1972 mod
Caterpillar	D9	94	Within 15m 1972 mod
Caterpillar	D9	90	Within 15m 1963 mod
Caterpillar	D9	87	Within 15m 1965 mod
Caterpillar	D9	90	Within 15m 1965 mod

Caterpillar	D9	88	Within 15m 1968 mod
Caterpillar	D9	92	Within 15m 1972 mod
Caterpillar	D9G	85	Within 15m 1965 mod
Allis Chambers	HD41	93	Within 15m 1970 mod
International	TD15	79	Within 15m 1970 mod
International	TD20	87	Within 15m 1970 mod
International	TD25	90	Within 15m 1972 mod
International	TD8	83	Within 15m 1970 mod
Case	1150	82	Within 15m 1972 mod
John Deer	350B	77	Within 15m 1971 mod
John Deer	450B	65	Within 15m 1972 mod
Terex	8230	70	Within 15m 1972 mod
Terex	8240	93	Within 15m 1969 mod
Michigan	280	85	Within 15m 1961 mod
Michigan	280	90	Within 15m 1962 mod
Caterpillar	824	90	Within 15m 1968 mod

Table 9.6 Construction Equipment Noise Levels Based on Limited Data Samples - Graders.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Caterpillar	16	91	Within 15m 1969 mod
Caterpillar	16	86	Within 15m 1968 mod
Caterpillar	140	83	Within 15m 1970 mod
Caterpillar	14E	84	Within 15m 1972 mod
Caterpillar	14E	85	Within 15m 1971 mod
Caterpillar	14C	85	Within 15m 1971 mod
Caterpillar	14B	84	Within 15m 1967 mod
Caterpillar	12F	82	Within 15m 1961-72 mod
Caterpillar	12F	72-92	Within 15m 1961-72 mod
Caterpillar	12E	81.3	Within 15m 1959-67 mod
Caterpillar	12E	80-83	Within 15m 1959-67 mod
Caterpillar	12	84.7	Within 15m 1960-67 mod
Caterpillar	12	82-88	Within 15m 1960-67 mod
Gallon	T500	84	Within 15m 1964 mod
Allis Chambers		87	Within 15m 1964 mod

Table 9.7 Construction Equipment Noise Levels Based on Limited Data Samples - Scrapers.

Manufacturer	Type or Model	Peak Noise Level (dBA)	Remarks
Caterpillar	660	92	Within 15m
Caterpillar	641B	85	Within 15m 1972 mod
Caterpillar	641B	86	Within 15m 1972 mod
Caterpillar	641	80 & 84	Within 15m 1972 mod
Caterpillar	641	83 & 89	Within 15m 1965 mod
Caterpillar	637	87	Within 15m 1971 mod
Caterpillar	633	87	Within 15m 1972 mod
Caterpillar	631C	89	Within 15m 1973 mod
Caterpillar	631C	83	Within 15m 1972 mod
Caterpillar	631B	94	Within 15m 1969 mod
Caterpillar	631B	84-87	Within 15m 1968 mod
Caterpillar		85 avg.	Within 15m 1968 mod
Caterpillar	621	90	Within 15m 1970 mod
Caterpillar	621	86	Within 15m 1967 mod
Caterpillar	613	76	Within 15m 1972 mod
Terex	TS24	87	Within 15m 1972 mod
Terex	TS24	84-91	
Terex	TS24	82	Within 15m 1971 mod
Terex	TS24	81-83	Within 15m 1971 mod
Terex	TS24	94	Within 15m 1966 mod
Terex	TS24	92-98	Within 15m 1966 mod
Terex	TS24	94.7	Within 15m 1963 mod
Terex	TS24	94-95	Within 15m 1963 mod
Terex	TS14	82	Within 15m 1969 mod
Terex	S35E	84	Within 15m 1971 mod

Table 9.8 Noise Levels of Standard Compressors.

Manufacturer	Model	Silenced or Standard	Type Eng.	Type Comp.	Test Avg. Cond. (cfm.psi)	Avg. Cond. Noise Lev. (cfm.psi) (dBA) at 7m*
Atlas	ST-48	Standard	Diesel	Reciprocal	160,100	83.6
Atlas	ST-95	Standard	Diesel	Reciprocal	330,105	80.2
Atlas	VSS-170Dd	Silenced	Diesel	Reciprocal	170,850	70.2
Atlas	VT-85M	Standard	Gas	Reciprocal	85,100	81.4
Atlas	VS-85Dd	Silenced	Gas	Reciprocal	85,100	75.5
Atlas	VSS-125Dd	Silenced	Diesel	Reciprocal	125,100	70.1

Atlas	STS-35Dd	Silenced	Diesel	Reciprocal	125,100	73.5
Atlas	VSS-170Dd	Silenced	Diesel	Reciprocal	170,100	
Gardner-Denver	SPWDA/2	Silenced	Diesel	Rotary-Screw	1200,000	73.3
Gardner-Denver	SPQDA/2	Silenced	Diesel	Rotary-Screw	750,000	78.2
Gardner-Denver	SPHGC	Silenced	Gas	Rotary-Screw	185,000	77.1
Ingersoll-Rand	DXL 1200	Standard	Diesel	Rotary-Screw	1200,125	92.6
Ingersoll-Rand	DXL 1200 (doors open)	Standard	Diesel	Rotary-Screw	1200,125	
Ingersoll-Rand	DXL 900S	Silenced	Diesel	Rotary-Screw	900,125	76.0
Ingersoll-Rand	DXL 900S	Silenced	Diesel	Rotary-Screw	900,125	75.1
Ingersoll-Rand	DXLCU1050	Standard	Diesel	Rotary-Screw	1050,125	90.2
Ingersoll-Rand	DXL 900S	Silenced	Diesel	Rotary-Screw	900,125	75.3
Ingersoll-Rand	DXL 900S	Silenced	Diesel	Rotary-Screw	900,125	75.0
Ingersoll-Rand	DXL 900	Standard	Diesel	Rotary-Screw	900,125	89.9
Ingersoll-Rand	DXL 750	Standard	Diesel	Rotary-Screw	750,125	87.7
Jaeger	A	Standard	Gas	Rotary-Screw	175,100	88.2
Jaeger	A(doors open)	Standard	Gas	Rotary-Screw	175,100	
Jaeger	E	Standard	Gas	Vane	85,100	81.5
Jaeger	E(doors open)	Standard	Gas	Vane	85,100	
Worthington	60 G/2Qt	Silenced	Gas	Vane	160,100	74.2
Worthington	750-QTEX	Silenced	Diesel	Rotary-Screw	750,100	74.7

*Data taken from EPA Report - EPA 550/9-76-004.

9.4.3 FTA Noise and Vibration Assessment Procedure

Chapter 12 of the FTA Transit Noise and Vibration Guidance Handbook discusses construction noise evaluation methodology and contains the noise emission levels for construction equipment displayed in Table 9.9.

Table 9.9 FTA Construction Equipment Noise Emission Levels.

Equipment	Typical Noise Level (dBA) 50 ft from Source*
Air Compressor	81
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane Derrick	88
Crane Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pile Driver (Impact)	101
Pile Driver (Sonic)	96
Pneumatic Tool	85
Pump	76
Rail Saw	90
Rock Drill	98
Roller	74
Saw	76
Scarifier	83
Scraper	89
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	88

*Table based on EPA Report, measured data from railroad construction equipment taken during Northeast Corridor improvement project and other measured data.

9.5 Links to Equipment Manufacturers

Table 9.10 contains web-based links to manufacturers of construction equipment. While few of these links contain noise-related data associated with the equipment, they provide descriptions and/or specifications related to the equipment, as well as sources for possibly obtaining additional information related to the equipment. Information in this table is by no means all-inclusive and does not represent any type of endorsement of the manufacturers, suppliers, or equipment. Users are hereby advised that the referenced websites may have certain restrictions, copyrights, etc., associated with any use of data contained therein.

Table 9.10 Equipment Manufacturers and Websites.

Equipment	Manufacturer	Website Address
Arrow Boards		
	North Star	http://northstar-traffic.com/index.cfm?SC=14&PT=1
	Trafcom	http://www.trafcon.com
	Allmand	http://www.allmand.com/MB%20AB%20page.htm
Articulated Trucks		
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=196
	Hitachi	http://www.hitachi-c-m.com/global/products/articulate/index.html
	Terex	http://www.terex.com/main.php
	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Volvo	http://www.volvo.com/constructionequipment/na/en-us/products/articulatedhaulers/
Asphalt Saws		
	Allied	http://www.alliedcp.com/products/rotocut.asp
Augers - See Drills / Augers		
Backhoes - See Loaders/Backhoes		
Boring Equipment - See Pile Drivers/Boring Equipment		
Compaction Equipment		
	Allied	http://www.alliedcp.com/products/compactor.asp
Compressors		
	Sullair	http://www.sullair.com/corp/details/0,10294,CLI1_DIV61_ETI5714,00.html
	Compair	http://www.compair.com/Products/Portable_Compressors.aspx
Concrete and Asphalt Batch/Mixing Plants and Equipment		
	Con-E-Co	http://www.con-e-co.com/products.cfm
	Terex	http://www.terex.com/main.php
	Gunter & Zimmerman	http://www.guntert.com/concrete_mobilebatching.asp
	Rex Con	http://www.rexcon.com
Concrete Breakers/ Hydraulic Hammers/Hydraulic Breakers		
	Drillman	http://www.drillmanindia.com/concrete-breaker.html
	Hydro Khan	http:/www.sangi.co.kr/english/e_product1_2.php
	Stanley	http://www.stanley-hydraulic-tools.com/Hand%20Held/NoAmbreakers.htm
	Lynx	http://www.stanley-hydraulic-tools.com/Lynx/breakers.htm
Concrete Chain Saws		
	Lynx	http://www.stanley-hydraulic-tools.com/Lynx/concrete-saws.htm
Concrete Core Drilling Machines		
	Multiquip	http://www.multiquip.com/multiquip/318_ENU_HTML.htm
Concrete Cutters		

	Vermeer	http://www.vermeermfg.com/vcom/TrenchingEquipment/Line.jsp?PrdlnID=3618
Concrete/Material Pumps		
	Multiquip	http://www.multiquip.com/multiquip/309_ENU_HTML.htm
	Reed	http://www.reedpumps.com/
Concrete Mixer Trucks		
	Oshkosh	http://www.oshkoshtruck.com/concrete/products~overview~home.cfm
	London	http://www.lmi.ca/mixers.cfm
	Terex/Advance	http://www.advancemixer.com
Concrete Saws		
	Multiquip	http://www.multiquip.com/multiquip/315_ENU_HTML.htm
	Diamond Core Cut	http://www.diamondproducts.com/dp_home.htm
Concrete Screeds		
	Multiquip	http://www.multiquip.com/multiquip/317_ENU_HTML.htm
Concrete Vibrators		
	Multiquip	http://www.multiquip.com/multiquip/313_ENU_HTML.htm
	Sullair	http://www.sullair.com/corp/details/0,10294,CLI1_DIV61_ETI5722,00.html
Cranes		
	Malcolm Drilling	www.malcolmdrilling.com
	Link-Belt	http://www.linkbelt.com/lit/products/frameproducthome.htm
	Casagrande	http://www.casagrandegroup.com
	Liebherr	http://www.liebherr.com/em/en/35381.asp
	Terex	http://www.terex.com/main.php
Crawler Tractors - See Dozers/Crawler Tractors		
Crushing and Screening Equipment		
	Cedarapids	http://www.cedarapids.com/crushscr.htm
	Hitachi	http://www.hitachi-c-m.com/
	Komatsu	http://www.komatsu.com/ce/products/mobile_crushers.html
	Terex	http://www.terex.com/main.php
Crushers/Pulverizers		
	Hydro Khan	http://www.sangi.co.kr/english/e_product3.php
Cutoff Saws		
	Multiquip	http://www.multiquip.com/multiquip/309_ENU_HTML.htm
	Lynx	http://www.stanley-hydraulic-tools.com/Lynx/cutoff%20saw.htm
Dozers/CrawlerTractors		
	John Deere	http://www.deere.com/en_US/cfd/construction/deere_const/crawlers/deere_dozer_sele
	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=2
	Komatsu	http://www.komatsu.com/ce/products/crawler_dozers.html
Dewatering Pumps		
	Multiquip	http://www.multiquip.com/multiquip/371_ENU_HTML.htm
Drills / Augers		
	Malcolm Drilling	www.malcolmdrilling.com
	Casagrande	www.casagrandegroup.com
	Soilmec	http://www.soilmec.com/_vti_g1_techno.aspx?rpstry=4_

	Terex	http://www.terex.com/main.php
Excavators		
	Hitachi	http://www.hitachi-c-m.com/global/products/excavator/index.html
	Caterpiller	http://www.cat.com/cda/layout?m=37840&x=7
	Volvo	http://www.volvo.com/constructionequipment/na/en-us/products/compactexcavators/
		http://www.volvo.com/constructionequipment/na/en-us/products/wheeledexcavators/
		http://www.volvo.com/constructionequipment/na/en-us/products/crawlerexcavators/
	John Deere	http://www.deere.com/en_US/cfd/construction/deere_const/excavators/deere_excavatc
	Liebherr	http://www.liebherr.com/em/en/18891.asp
	Soilmec	http://www.soilmec.com/_vti_g1_t02.aspx?rpstry=29_
	Gehl	http://www.gehl.com
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=216
	Komatsu	http://www.komatsu.com/ce/products/crawler_excavators.html
		http://www.komatsu.com/ce/products/wheel_excavators.html
	Terex	http://www.terex.com/main.php
	Link-Belt	http://www.lbxco.com/lx_series.asp
	Gradall	http://www.gradall.com/
	Badger Daylighting	http://www.badgerinc.com/
Fork Lifts - See Lifts / Variable Reach Fork Lifts/ Material Handlers		
Generators		
	Terex	http://www.terex.com/main.php
	Multiquip	http://www.multiquip.com/multiquip/212_ENU_HTML.htm
	Sullair	http://www.sullair.com/corp/details/0,10294,CLI1_DIV61_ETI5714,00.html
	Baldor	http://www.baldor.com/products/generators/ts.asp
Graders		
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=190
	Volvo	http://www.volvo.com/constructionequipment/na/en-us/products/MotorGraders/
	Komatsu	http://www.komatsu.com/ce/products/motor_graders.html
	Terex	http://www.terex.com/main.php
Hand Compaction Equipment		
	Terex	http://www.terex.com/main.php
	Multiquip	http://www.multiquip.com/multiquip/56_ENU_HTML.htm
Hydraulic Hammers/Hydraulic Breakers - See Concrete Breakers/ HydraulicHammers/Hydraulic Breakers		
Jackhammers - See Rock Drilling Equipment/Jackhammers		
Lifts / Variable Reach Fork Lifts/ Material Handlers		
	Genie Lift	www.genielift.com
	Sky Track	www.kirby-smith.com/
	Ingersol-Rand	www.ingersollrand.com
	Terex	http://www.terex.com/main.php
	Roadtec	http://www.roadtec.com/www/docs/102/mtv-material-transfer-vehicle/
LightTowers		
	Baldor	http://www.baldor.com/products/generators/mlt.asp
	Multiquip	http://www.multiquip.com/multiquip/293_ENU_HTML.htm
	Allmand	http://www.allmand.com/Night%20Lite%20Pro%20page.htm
Loaders/Backhoes		
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=54

	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Volvo	http://www.volvo.com/constructionequipment/na/en-us/products/backhoeloaders/
	John Deere	http://www.deere.com/en_US/cfd/construction/deere_const/backhoes/deere_backhoe_
	Komatsu	http://www.komatsu.com/ce/products/backhoe_loaders.html
Material Handlers - See Lifts / Variable Reach Fork Lifts/ Material Handlers		
Milling Machines		
	Wirtgen	https://www.wirtgenamerica.com/noflash.html
Mining Trucks - See Rigid Dump Trucks/Mining Trucks		
Pans - See Scrapers/Pans		
Pavers/Paving Equipment		
	Caterpillar/ Barber Greene	http://www.cat.com/cda/layout?m=37840&x=7
	Rosco	http://www.leeboy.com/rosco/
	Bomag	http://www.bomag.com/americas/index.aspx?&Lang=478
	Gehl	http://www.gehl.com/const/prodpg_ap.html
	Leeboy	http://www.leeboy.com/leeboy/
	Terex	http://www.terex.com/main.php
	Ingersoll-Rand	http://www.road-development.irco.com/Default.aspx?MenuItemID=12
	Vogele	http://www.vogeleamerica.com/noflash.html
	GOMACO	http://www.gomaco.com/index.html
	Roadtec	http://www.roadtec.com
Pile Drivers/Boring Equipment		
	Soilmec	http://www.soilmec.com/_vti_g1_t09.aspx?rpstry=29_
	Leffer	http://www.leffer.com/hme.html
	Bauer	http://www.bauer.de/en/maschinenbau/produkte/drehbohrgeraete/bg_reihe/usbg15h.ht
Pipelayers/Trenchers		
	Liebherr	http://www.liebherr.com/em/en/18908.asp
	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=28&archived=1
	Vermeer	http://www.vermeermfg.com/vcom/TrenchingEquipment/trenching-equipment.htm
	Ditchwitch	http://www.ditchwitch.com/dwcom/Product/ProductView/115
	Eagle	http://www.guntert.com/trenchers_home.asp
Profilers - See Roadway Planers/Profilers		
Rammers		
	Multiquip	http://www.multiquip.com/multiquip/56_ENU_HTML.htm
Rebar Benders/Cutters		
	Multiquip	http://www.multiquip.com/multiquip/1316_ENU_HTML.htm
Recyclers - See Stabilizers/Recyclers		
Rigid Dump Trucks/Mining Trucks		
	Hitachi	http://www.hitachi-c-m.com/global/products/rigid/index.html
	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Liebherr	http://www.liebherr.com/em/en/18898.asp
	Komatsu	http://www.komatsu.com/ce/products/dump_trucks.html
	Terex	http://www.terex.com/main.php
Roadway Planers/Profilers		
	Terex	http://www.terex.com/main.php
	Roadtec	http://www.roadtec.com/products/cold_planers/default.htm

Rock Drilling Equipment/Jackhammers		
	Drillman	http://www.drillmanindia.com/rock-drilling-machine.html
	Whaker	http://www.wackergroup.com/webapp/wcs/stores/servlet/
	Sullair	http://www.sullair.com/corp/details/0,10294,CLI1_DIV61_ETI5721,00.html
	Allied	http://www.alliedcp.com/products/hammers.asp
Rollers - See Tampers/Rollers		
Scrapers/Pans		
	Terex	http://www.terex.com/main.php
Screening Equipment - See Crushing and Screening Equipment		
Slabbuster		
	Allied	http://www.alliedcp.com/products/slabbuster.asp
Slip Form Pavers		
	Huron	http://www.huronmanufacturing.com/
	Guntert & Zimmerman	http://www.guntert.com/concreteSlipformPavers.asp
Stabilizers/Recyclers		
	Bomag	http://www.bomag.com/americas/index.aspx?&Lang=478
	Komatsu	http://www.komatsu.com/ce/products/mobile_crushers.html
	Terex	http://www.terex.com/main.php
	Wirtgen	https://www.wirtgenamerica.com/noflash.html
	Roadtec	http://www.roadtec.com
Sweepers		
	Elgin	http://www.elginsweeper.com
	Johnston	http://www.johnstonsweepers.com/
Tampers/ Rollers		
	Bomag	http://www.bomag.com/americas/index.aspx?&Lang=478
	Komatsu	http://www.komatsu.com/ce/products/vibratory_rollers.html
	Whaker	http://www.wackergroup.com/webapp/wcs/stores/servlet/
	Lynx	http://www.stanley-hydraulic-tools.com/Lynx/tamper.htm
	Multiquip	http://www.multiquip.com/multiquip/181_ENU_HTML.htm
	Ingersoll-Rand	http://www.road-development.irco.com/Default.aspx?MenuItemID=15
Trenchers - See Pipelayers/Trenchers		
Trucks - See Articulated Trucks, Concrete Mixer Trucks, Rigid Dump Trucks/Mining Trucks		
Vacuum Units		
	Advanced Recycling Systems	www.arsrecycling.com/
	Vacmasters	http://www.vacmasters.com/airsystm.htm
	Vector	http://www.vector-vacuums.com/
Variable Message Signs		
	Allmand	http://www.allmand.com/MB%20only%20page.htm
	North Star	http://northstar-traffic.com/index.cfm?SC=13&PT=1
	Trafcom	http://www.trafcon.com
	Daktronics	http://www.daktronics.com/vms_prod/dak_vms_products.cfm
Vibratory Rammers		
	Whaker	http://www.wackergroup.com/webapp/wcs/stores/servlet/
Welders/Welding Equipment		

	Airgas	www.airgas.com
	Multiquip	http://www.multiquip.com/multiquip/408_ENU_HTML.htm
	Miller	http://www.millerwelds.com/products/
	Lincoln	http://www.mylincolnelectric.com/Catalog/equipmentseries.asp?browse=101|400|
Wheel Loaders		
	Hitachi	http://www.hitachi-c-m.com/global/products/loader/index.html
	Case	http://www.casece.com/products/products.asp?RL=NAE&id=30
	Caterpillar	http://www.cat.com/cda/layout?m=37840&x=7
	Volvo	http://www.volvo.com/constructionequipment/na/en-us/products/wheelloaders/
	Terex	http://www.terex.com/main.php
	Komatsu	http://www.komatsu.com/ce/products/wheel_loaders.html
	TCM	http://www.tcmglobal.net/products/main02.html

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Appendix G

AIR QUALITY AND GREENHOUSE GAS TECHNICAL REPORT

One Paseo

Air Quality and Greenhouse Gas Technical Report

March 2012

Prepared for:
Kilroy Realty Corporation
and City of San Diego
Development Services Department

Prepared by:
HELIX Environmental Planning, Inc.
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La Mesa, CA 91942

Air Quality and Greenhouse Gas Technical Report

One Paseo
Project No. 193036

Prepared By:

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La Mesa, CA 91942

Prepared for:

Kilroy Realty
and
City of San Diego
Development Services Department

March 2012

AIR QUALITY AND GREENHOUSE GAS TECHNICAL REPORT FOR THE ONE PASEO PROJECT

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LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACM	asbestos-containing matierals
ADT	average daily traffic
AEP	Association of Environmental Professionals
ASCI	Asbestos Standards for the Construction Industry
BAU	business as usual
BACT	Best Available Control Technology
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CAFE	Corporate Average Fuel Economy
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	chlorofluoricarbons
City	City of San Diego
CIWMB	California Integrated Waste Management Board
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
cy	cubic yards
DPM	diesel particulate matter
du	dwelling unit
EPA	U.S. Environmental Protection Agency
EPIC	Energy Policy Initiative Center
F	Fahrenheit
FHWA	Federal Highway Administration
g/L	gallons per liter
GHG	greenhouse gas
gla	gross leasable area
gpm	gallons per minute
GVWR	gross weight vehicle rating
GWP	global warming potential

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

HAP	hazardous air pollutants
HFCs	hydrofluorocarbons
HI	hazard index
hp	horsepower
H_2S	hydrogen sulfide
HVLP	High-Volume, Low-Pressure
ICLEI	International Council on Local Environment Initiatives
IPCC	Intergovernmental Panel on Climate Change
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
LEED	Leadership in Energy and Environmental Design
LOS	level of service
MCAS	Marine Corp Air Station
MMT	million metric tons
MPOs	Metropolitan Planning Organizations
MSAT	mobile source air toxics
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NLEV	natural low emission vehicle
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NOA	naturally occurring asbestos
NSHP	New Solar Home Partnership
O_3	ozone
OAL	Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PFCs	perfluorocarbons
$PM_{2.5}$	particulate matter of less than 2.5 microns in size
PM_{10}	particulate matter of less than 10 microns in size
ppb	parts per billion
ppm	parts per million
Protocol	California Climate Action Registry General Reporting Protocol
PUC	Public Utilities Commission
PVC	polyvinyl chloride

LIST OF ACRONYMS AND ABBREVIATIONS (cont.)

RAQS	Regional Air Quality Strategy
REL	reference exposure level
RFG	reformulated gasoline
ROG	reactive organic compounds
RPS	Renewable Portfolio Standards
RTAC	Regional Targets Advisory Committee
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCGHGI	San Diego County Greenhouse Gas Inventory
sf	square feet
SF_6	hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
TAC	toxic air contaminants
tpy	tons per year
TRU	transportation refrigeration units
UNFCCC	United Nations Framework Convention on Climate Change
VMT	vehicle miles traveled
VOC	volatile organic compounds

1.0 INTRODUCTION

This report presents an assessment of potential air pollutant and climate change impacts associated with the One Paseo (Proposed Project). The Proposed Project entails the phased construction of a maximum 1,857,440 gross-square foot mixed-use development on a 23.6-acre graded and vacant site located in the suburbanized area of the Carmel Valley community of the City of San Diego (City). The proposed mixed-use Project consists of approximately 220,000 gross square feet (sf) of commercial retail, approximately 50,000 gross sf of cinema, approximately 535,600 gross sf of corporate office, approximately 21,840 gross sf of professional office, approximately 100,000 gross sf consisting of a 150-room hotel, and approximately 930,000 gross sf consisting of 608 multi-family residential units. The potential gross leasable area (gla) of the Project includes approximately 270,000 sf of commercial retail and approximately 536,000 sf of commercial office. The Project also would include public space areas, internal roadways, landscaping, hardscape treatments, and utility improvements to support these uses.

For the purposes of phasing, the Project has been divided into five blocks surrounding a central Main Street. Blocks D and E would be constructed in Phase 1, Block A is anticipated to be constructed in Phase 2, and Blocks B and C are anticipated to be developed in Phase 3. Proposed land uses and Project features in each Block are summarized in Tables 1 and 2.

A horizon year of 2030 is expected to be the Project's full buildout. The air quality and climate change evaluation addresses the potential for air emissions during construction and after full buildout of the Project.

Table 1
DEVELOPMENT SUMMARY

Phase/Block	Commercial Retail[1] (sf)		Commercial Office[3] (sf)		Hotel (Rooms)	Residential (MF Units)	Total[1]
	Retail	Cinema[2]	Corporate Office	Professional Office[4]			
Phase 1							
Block D	61,190	---	270,000	21,000	---	---	352,190
Block E	39,460	---	245,000	---	---	---	284.460
Phase 1 Total	*100,650*	---	*515,000*	*21,000*	---	---	*636,650*

Table 1 (cont.) DEVELOPMENT SUMMARY							
Phase/Block	**Commercial Retail[1] (sf)**		**Commercial Office[3] (sf)**		**Hotel (Rooms)**	**Residential (MF Units)**	**Total[1]**
	Retail	**Cinema[2]**	**Corporate Office**	**Professional Office[4]**			
Phase 2							
Block A	65,610	---	---	---	---	194	65,610 + 194 MF units
Phase 2 Total	*65,610*	---	---	---		*194*	*65,610 + 194 MF units*
Phase 3							
Block B	38,940	---	---	---	150	181	38,940 + 150 hotel rooms + 181 MF units
Block C	14,800	---	---	---		233	14,800 + 233 MF units
Block D	---	50,000	---	---	---		50,000
Phase 3 Total	*53,740*	*50,000*	---	---	---	*414*	*103,740 + 418 MF units*
Total[1]	**220,000**	**50,000**	**515,000**	**21,000**	**150**	**608**	**806,000 + 150 hotel rooms + 608 MF units**

MF = multi-family
[1] As it relates to retail, all areas are considered gross leasable because all retail space may be leasable.
[2] Cinema consists of up to 10 screens.
[3] Gross Leasable Area (excludes parking structures in conformance with City of San Diego LDC Sections 113.0234 and 142.0560). Density transfers permitted in accordance with procedures described in the Precise Plan.
[4] Professional Office (located on Main Street).

Table 2 GROSS FLOOR AREA SUMMARY[1]						
Commercial Retail[2] (sf)		Commercial Office (sf)		Hotel (sf)	Residential (sf)	Total
Retail	Cinema[3]	Corporate Office	Professional Office[4]			
220,000	50,000	535,600	21,840	100,000	930,000	1,857,440

[1] Gross Floor Area calculations per Land Development Code.
[2] Gross square feet
[3] Cinema of up to 10 screens.
[4] Professional Office (located on Main Street).

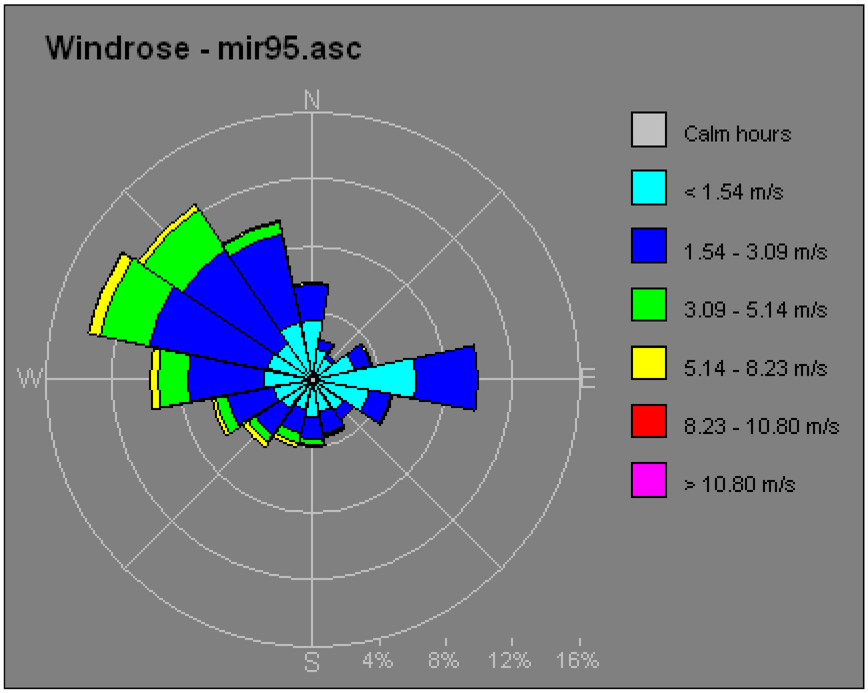
2.0 EXISTING CONDITIONS

2.1 CLIMATE AND METEOROLOGY

The climate in southern California, including the San Diego Air Basin (SDAB), is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. Areas within 30 miles of the coast experience moderate temperatures and comfortable humidity. Precipitation is limited to a few storms during the winter season. The climate of San Diego County is characterized by hot, dry summers and mild, wet winters.

Figure 1 presents a wind rose from the Marine Corp Air Station (MCAS) Miramar meteorological monitoring station that presents general meteorological trends in the Project area. MCAS Miramar is the closest meteorological monitoring station to the Project site. Wind monitoring data recorded at the MCAS Miramar station indicates that the predominant wind direction in the vicinity of Proposed Project is from the west. Average wind speed in the vicinity is approximately 5.8 miles per hour. The annual average temperature in the Project area is approximately 50 degrees Fahrenheit (ºF) during the winter and approximately 75ºF during the summer. Total precipitation in the Project areas averages approximately 13 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center 2010).

Figure 1. Wind Rose – MCAS Miramar Monitoring Station



The atmospheric conditions of the SDAB contribute to the region's air quality problems. Due to its climate, the SDAB experiences frequent temperature inversions (temperature increases as altitude increases). Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide (NO_2) react under strong sunlight, creating smog. Light, daytime winds, predominately from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions (SDAPCD 2008a).

High air pollution levels in coastal communities of San Diego often occur when polluted air from the South Coast Air Basin, particularly Los Angeles, travels southwest over the ocean at night, and is brought onshore into San Diego by the sea breeze during the day. Smog transported from the Los Angeles area is a key factor on more than 50 percent of the days San Diego exceeds clean air standards. Ozone (O_3) and precursor emissions are transported to San Diego during relatively mild Santa Ana weather conditions. However, during strong Santa Ana weather conditions, pollutants are pushed far out to sea and miss San Diego. When smog is blown in from the South Coast Air Basin at ground level, the highest O_3 concentrations are measured at coastal and near-coastal monitoring stations. When the transported smog is elevated, coastal sites may be passed over, and the transported ozone is measured further inland and on the mountain slopes.

Current Climate Change Effects

Many researchers studying California's climate believe that changes in the earth's climate have already affected California, and will continue to do so in the future. Projected future climate change may affect California in a variety of ways. Public health may suffer due to greater temperature extremes and more frequent extreme weather events, increases in transmission of infectious disease, and increases in air pollution. Agriculture is especially vulnerable to altered temperature and rainfall patterns and related pest problems. Forest ecosystems would face increased fire hazards and would be more susceptible to pests and diseases. The Sierra snowpack that functions as the state's largest reservoir could shrink by a third by the year 2060, and to half its historic size by the year 2090. Runoff that fills reservoirs is expected to start in midwinter, not spring, and rain falling on snow is expected to trigger more flooding. The California coast is likely to face a rise in sea level that could threaten the shorelines. Sea-level rise and storm surges could lead to flooding of low-lying property, loss of coastal wetlands, erosion of cliffs and beaches, saltwater contamination of drinking water, and damage to roads, causeways, and bridges.

2.2 AIR POLLUTANTS OF CONCERN

2.2.1 Criteria Pollutants

Federal and state laws regulate the air pollutants emitted into the ambient air by stationary and mobile sources. These regulated air pollutants are known as "criteria pollutants" and are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. CO, reactive organic gases (ROG), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and most inhalable particulate matter (P, $PM_{2.5}$) including lead (Pb) and fugitive dust; are primary air pollutants. Of these CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone and NO_2 are the principal secondary pollutants.

2.2.2 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Act (42 USC Sec. 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines the substance is an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health.

Cancer Risk

One of the primary health risks of concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is a particular public health concern because it is currently believed by many scientists that there is no "safe" level of exposure to carcinogens, that is, any exposure to a carcinogen poses some risk of causing cancer. Health statistics show that one in four people will contract cancer over their lifetime, or 250,000 in a million, from all causes, including diet, genetic factors, and lifestyle choices.

Noncancer Health Risks

Unlike carcinogens, for most noncarcinogens it is believed that there is a threshold level of exposure to the compound below which it will not pose a health risk. The CalEPA and California Office of Environmental Health Hazard Assessment (OEHHA) have developed reference exposure levels (RELs) for noncarcinogenic TACs that are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The noncancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index (HI).

2.2.3 Greenhouse Gas

Parts of the Earth's atmosphere act as an insulating blanket of just the right thickness, trapping sufficient solar energy to keep the global average temperature in a suitable range. The "blanket" is a collection of atmospheric gases called greenhouse gases (GHGs) based on the idea that the gases also "trap" heat like the glass wall of a greenhouse. These gases, mainly water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, and chlorofluorocarbons (CFCs), all act effective global insulators, reflecting back to earth heat and infrared radiation. Human activities such as producing electricity with fossil fuels and driving vehicles have contributed to the elevated concentration of these gases in the atmosphere. This is turn, is causing the Earth's temperature to rise. A warmer Earth may lead to changes in rainfall patterns, much smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans. Without these natural GHGs, Earth's temperature would be about 61º Fahrenheit cooler (CalEPA 2006).

2.3 CRITERIA POLLUTANTS

2.3.1 Background

Criteria pollutants are defined by state and federal law as a risk to the health and welfare of the general public. The following specific descriptions of health effects for each of these air pollutants associated with Project construction and operations are based on U.S. Environmental Protection Agency (EPA) (2007) and CARB (2009a).

Ozone

O_3 is considered a photochemical oxidant, which is a chemical that is formed when VOCs and NOx, both by-products of fuel combustion, react in the presence of ultraviolet light. O_3 is considered a respiratory irritant and prolonged exposure can reduce lung function, aggravate asthma and increase susceptibility to respiratory infections. Children and those with existing respiratory diseases are at greatest risk from exposure to O_3.

Carbon Monoxide

CO is a product of fuel combustion, and the main source of CO in the SDAB is from motor vehicle exhaust. CO is an odorless, colorless gas. CO affects red blood cells in the body by binding to hemoglobin and reducing the amount of oxygen that can be carried to the body's organs and tissues. CO can cause health effects to those with cardiovascular disease, and can also affect mental alertness and vision.

Nitrogen Dioxide

NO_2 is also a by-product of fuel combustion, and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitrogen oxide (NO) with oxygen. NO_2 is a respiratory irritant and may affect those with existing respiratory illness, including asthma. NO_2 can also increase the risk of respiratory illness.

Respirable Particulate Matter and Fine Particulate Matter

Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. Particulate matter in these size ranges have been determined to have the potential to lodge in the lungs and contribute to respiratory problems. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations and windblown dust. PM_{10} and $PM_{2.5}$ can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases such as asthma and chronic bronchitis. $PM_{2.5}$ is considered to have the potential to lodge deeper in the lungs.

Sulfur Dioxide

SO_2 is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes. Generally, the highest concentrations of SO_2 are found near large industrial sources. SO_2 is a respiratory irritant that can cause narrowing of the airways leading to wheezing and shortness of breath. Long-term exposure to SO_2 can cause respiratory illness and aggravate existing cardiovascular disease.

Lead

Pb in the atmosphere occurs as particulate matter. Pb has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions. Pb has the potential to cause gastrointestinal, central nervous system, kidney and blood diseases upon prolonged exposure. Pb is also classified as a probable human carcinogen.

Sulfates

Sulfates are the fully oxidized ionic form of sulfur. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. The CARB's sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the standard would result in exposure to a very disagreeable odor. In 1984, a CARB committee concluded that the ambient standard for H_2S is adequate to protect public health and to significantly reduce odor annoyance.

Vinyl Chloride

Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer, in humans.

2.3.2 Air Quality Regulations (Criteria Pollutants)

Air quality is defined by ambient air concentrations of specific pollutants identified by the EPA to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments.

The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. Areas that do not meet the NAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant.

The EPA established NAAQS for the protection of human health and the public welfare for six criteria pollutants: CO, SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$, and Pb. Ozone is not emitted directly, but is formed from a complex set of reactions involving O_3 precursors such as NO_x and ROC. Regulations relating to O_3, therefore, address emissions of NO_x and ROC.

The federal CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California CAA of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant.

On April 15, 2004, the San Diego Air Basin was classified as a basic nonattainment area for the 8-hour NAAQS for O_3. The SDAB is an attainment area for the NAAQS for all other criteria pollutants. The SDAB currently falls under a national "maintenance plan" for CO, following a 1998 redesignation as a CO attainment area (SDAPCD 2008b). The SDAB is currently classified as a nonattainment area under the CAAQS for O_3 (serious nonattainment), PM_{10}, and $PM_{2.5}$ (CARB 2008b).

The CARB is the state regulatory agency with authority to enforce regulations to achieve and maintain the NAAQS and CAAQS. The CARB is responsible for the development, adoption and enforcement of the state's motor vehicle emissions program, as well as the adoption of the CAAQS. The CARB also reviews operations and programs of the local air districts, and requires each air district that is considered a nonattainment area to develop its own strategy for achieving the NAAQS and CAAQS. Each local air district has the primary responsibility for the development and implementation of rules and regulations that reflect the strategy to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. In San Diego County, the attainment planning process is embodied in a regional air quality management plan developed jointly by the San Diego Air Pollution Control District (SDAPCD) and the San Diego Association of Governments (SANDAG).

Table 3, Ambient Air Quality Standards, presents a summary of the ambient air quality standards adopted by the federal and California CAAs.

Table 3
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 $\mu g/m^3$)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 $\mu g/m^3$)		0.075 ppm (147 $\mu g/m^3$)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 $\mu g/m^3$	Gravimetric or Beta Attenuation	150 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 $\mu g/m^3$		-		
Fine Particulate Matter ($PM_{2.5}$)	24-Hour	No Separate State Standard		35 $\mu g/m^3$	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 $\mu g/m^3$	Gravimetric or Beta Attenuation	15 $\mu g/m^3$		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		-	-	-
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 $\mu g/m^3$)	Gas Phase Chemiluminescence	0.053 ppm (100 $\mu g/m^3$)	Same as Primary Standard	Gas Phase Chemiluminescence
	1-Hour	0.18 ppm (470 $\mu g/m^3$)		0.100 ppm (see footnote 8)	None	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	-	Ultraviolet Fluorescence	0.030 ppm (80 $\mu g/m^3$)	-	Spectro-photometry (Pararo-saniline Method
	24-Hour	0.04 ppm (105 $\mu g/m^3$)		0.14 ppm (365 $\mu g/m^3$)	-	
	3-Hour	-		-	0.5 ppm (1300 $\mu g/m^3$)	
	1-Hour	0.25 ppm (655 $\mu g/m^3$)		-	-	-
Lead	30-Day Average	1.5 $\mu g/m^3$	Atomic Absorption	-	-	-
	Calendar Quarter	-		1.5 $\mu g/m^3$	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	-		0.15 $\mu g/m^3$		

Table 3 (cont.) AMBIENT AIR QUALITY STANDARDS						
Pollutant	**Averaging Time**	**California Standards[1]**		**Federal Standards[2]**		
		Concentration[3]	**Method[4]**	**Primary[3,5]**	**Secondary[3,6]**	**Method[7]**
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 kilometers – visibility of ten miles or more (0.7 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape		No Federal Standards		
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

[1] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent procedure which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the EPA.

[8] To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

[9] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[10] National lead standard, rolling 3-month average: final rule signed October 15, 2008.

ppm = parts per million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter
Source: CARB 2/16/2010

San Diego County Regional Air Quality Strategy

In San Diego, the SDAPCD is responsible for attainment planning required by the California Clean Air Act. The SDAPCD develops the Regional Air Quality Strategy (RAQS) to address strategies within the SDAB to attain and maintain air quality standards. The RAQS was initially adopted by the San Diego County Air Pollution Control Board on June 30, 1992, and amended on March 2, 1993, in response to CARB comments. SADAPCD further updated the RAQS revisions on December 12, 1995; June 17, 1998; August 8, 2001; July 28, 2004, and April 22, 2009. The local RAQS, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to the CARB, which develops the California State Implementation Plan (SIP). The SIP was adopted by the CARB in 1994, and forwarded to the EPA for their approval. After considerable analysis and debate, particularly regarding airsheds with the worst smog problems, the EPA approved the SIP in mid-1996. Since that date, SIP revisions have been developed and approved for nonattainment areas throughout the state; however, the SIP for the SDAB was not required to be updated, as it has achieved its attainment goals in a timely manner.

On April 15, 2004, EPA issued the initial designations for the 8-hour ozone standard, and the SDAB is classified as "basic" nonattainment. Basic is the least severe of the six degrees of ozone nonattainment. SDAPCD submitted an air quality attainment plan to EPA in May 2007; the plan demonstrated how the 8-hour ozone standard will be attained by 2009. However, the federal 8-hour ozone standard was exceeded in 2009. In addition, on January 6, 2010, the EPA proposed to strengthen the 8-hour ozone standard to a level within the range of 0.060-0.070 parts per million (ppm) (EPA 2010a). Final EPA approval of its nonattainment designation is not expected until 2012 for the San Diego Air Basin that the SDAPCD will be required to develop an updated *Eight-Hour Ozone Attainment Plan for San Diego County*, which calls for the SDAB to attain the new federal 8-hour O_3 NAAQS. On January 25, 2010, the EPA set a new 1-hour NO_2 standard at the level of 100 parts per billion (ppb). The EPA will designate areas as attaining or not attaining the new NO_2 standard by January 2012 (EPA 2010b).

2.3.3 Existing Criteria Pollutant Levels

The SDAPCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of the monitoring stations is to measure ambient concentrations of the pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest ambient monitoring stations to the Proposed Project site are the Del Mar-Mira Costa College station, which is located approximately two miles north of the Project site (O_3 only), the Kearny Mesa station, which is located approximately seven miles to the east-southeast of the Project site (PM_{10}, NO_2, and CO), and the downtown San Diego station, which is located approximately 17 miles south of the site (the closest monitoring station that measures CO and SO_2). Because of its coastal location similar to the Project site, the Del Mar monitoring station ozone levels are considered most representative of the site. Also, because of its proximity to the site and location in an area that is less congested than downtown San Diego, the Kearny Mesa monitoring station concentrations for all other pollutants except SO_2 are considered most representative of the Project site. The downtown San Diego monitoring station is the nearest location to the Project site where SO_2 concentrations are monitored. Ambient concentrations of pollutants from these stations between 2007 and 2010 are presented in Table 4, Ambient Background Concentrations.

The 1-hour state O_3 standard was exceeded one time in 2007, two times in 2008, two times in 2009, and none in 2010 at the Del Mar-Mira Costa College monitoring station during the time period from 2007 through 2010. The 8-hour state O_3 standard was exceeded four times in 2007, eleven times in 2008, three times in 2009, and two times in 2010. The 8-hour federal O_3 standard was exceeded three times in 2007 and 2008, one time in 2009, and none in 2010. The data from the monitoring stations indicate that air quality is in attainment of all other federal standards. The Kearny Mesa monitoring station measured at least one exceedance of the annual federal PM_{10} standard during the period from 2007 to 2010; however, one exceedance per year is exempted under NAAQS. The Kearny Mesa monitoring station measured one exceedance of the daily California PM_{10} standard in 2007, during the period of the October 2007 wildfire season. The data from the monitoring stations indicate that air quality is in attainment of all other state standards. Because of the location of the monitoring station in downtown San Diego, where traffic congestion is prevalent, the station has higher concentrations of CO than are measured elsewhere in San Diego County and the background data are not likely to be representative of background ambient CO concentrations in the Project vicinity. Use of downtown San Diego background data therefore provides a conservative estimate of background CO concentrations.

Table 4
AMBIENT BACKGROUND CONCENTRATIONS
SAN DIEGO MONITORING STATIONS

Air Pollutant	2007	2008	2009	2010
Ozone – Del Mar/Mira Costa College				
Max 1 Hour (ppm)	0.110	0.117	0.097	0.085
Days > CAAQS (0.09 ppm)	1	2	2	0
Max 8 Hour (ppm)	0.079	0.078	0.084	0.072
Days > NAAQS (0.075 ppm)	3	3	1	0
Days > CAAQS (0.070 ppm)	4	11	3	2
Particulate Matter (PM_{10}) – Kearny Mesa Overland Avenue				
Max Daily ($\mu g/m^3$)	65.0	41.0	50.0	33.0
Days > NAAQS (150 $\mu g/m^3$)	0	0	0	0
Days > CAAQS (50 $\mu g/m^3$)	1	0	0	0
Annual Max ($\mu g/m^3$)	22	24	25	25
Days > NAAQS (20 $\mu g/m^3$)	1	1	1	1
Particulate Matter ($PM_{2.5}$) – Kearny Mesa Overland Avenue				
Max Daily ($\mu g/m^3$)	30.6	27.2	25.1	18.7
Days > NAAQS (35 $\mu g/m^3$)	0	0	0	0
Annual Max ($\mu g/m^3$)	10.44	11.75	10.5	8.7
Days > NAAQS (12 $\mu g/m^3$)	0	0	0	0
Days > CAAQS (15 $\mu g/m^3$)	0	0	0	0
Nitrogen Dioxide (NO_2) – Kearny Mesa Overland Avenue				
Max 1 Hour (ppm)	0.087	0.077	0.060	0.073
Days > CAAQS (0.18 ppm)	0	0	0	0
Annual Max (ppm)	0.016	0.011	0.014	0.013
Days > NAAQS (0.053 ppm)	0	0	0	0
Days > CAAQS (0.030 ppm)	0	0	0	0

Table 4 (cont.) AMBIENT BACKGROUND CONCENTRATIONS SAN DIEGO MONITORING STATIONS				
Air Pollutant	**2007**	**2008**	**2009**	**2010**
Carbon Monoxide (CO) – Downtown San Diego				
Max 8 Hour (ppm)	5.18	2.24	2.77	2.17
Days > NAAQS (9 ppm)	0	0	0	0
Days > CAAQS (9.0 ppm)	0	0	0	0
Max 1 Hour (ppm)	8.7	2.4	2.5	2.3
Days > NAAQS (35 ppm)	0	0	0	0
Days > CAAQS (20 ppm)	0	0	0	0
Sulfur Dioxide (SO_2) – Downtown San Diego				
Max Daily Measurement (ppm)	0.006	0.007	0.006	0.002
Days > NAAQS (0.14 ppm)	0	0	0	0
Days > NAAQS (0.04 ppm)	0	0	0	0

Abbreviations: > = exceed, ppm = parts per million, $\mu g/m^3$ = micrograms per cubic meter, CAAQS = California Ambient Air Quality Standard, NAAQS = National Ambient Air Quality, Standard Mean = Annual Arithmetic Mean

* No Data / Insufficient Data

Source: www.arb.ca.gov (all pollutants except 1-hour CO and annual maximum for PM_{10}, $PM_{2.5}$, and NO_2)

www.epa.gov/air/data/monvals.html (1-hour CO, and annual maximums for PM_{10}, $PM_{2.5}$, and NO_2)

2.4 TOXIC AIR CONTAMINANTS

2.4.1 Toxic Air Contaminants Background

In addition to the criteria pollutants for which there are NAAQS and CAAQS, EPA and CARB also regulates a list of air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners) and stationary sources (e.g., factories or refineries).

Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics identified by the EPA. MSATs are emitted from vehicle and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as by-products. Metal air toxics result from engine wear or from impurities in oil or gasoline.

The EPA is the lead federal agency for administering the Federal CAA and has certain responsibilities regarding the health effects of MSATs. The EPA issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources 66 FR 17229 (March 29, 2001). In the 2001 rulemaking, six of the 21 MSATs were identified by EPA as priority MSATS: *acetaldehyde, benzene, formaldehyde, diesel exhaust, acrolein,* and *1,3-butadiene* (66 FR 17230).

In its rule, EPA also examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline (RFG) program, its national low emission vehicle (NLEV) standards, its Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and its proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements. Between 2000 and 2020, the Federal Highway Administration (FHWA) projects that even with a 64 percent increase in vehicle miles traveled (VMT), these programs will reduce on-highway emissions of benzene, formaldehyde, 1,3-butadiene, and acetaldehyde by 57 to 65 percent, and will reduce on-highway diesel particulate matter (DPM) emissions by 87 percent.

In 1998, California identified DPM as a TAC based on its potential to cause cancer and other adverse health impacts. In addition to DPM, emissions from diesel-fueled engines include over 40 other cancer causing substances. In September 2000, the CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled engines and vehicles. The goal of the Plan is to reduce diesel PM emissions and the associated health risk by 75 percent in 2010 and 85 percent or more by 2020 (from the base year 2000 level).

2.4.2 Toxic Air Contaminants Regulations

California Diesel Regulations

The CARB is responsible for developing statewide programs and strategies to reduce the emission of smog-forming pollutants and toxics by diesel-fueled mobile sources. The identification of DPM as a TAC in 1998 led the CARB to adopt the *Diesel Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles* in 2000 (CARB 2000). Included below are some of the resultant regulations that may be pertinent to this Project.

California Diesel Fuel Regulations

This rule sets sulfur limitations for diesel fuel sold in California for use in on-road and off-road motor vehicles (CARB 2005). Under this rule, diesel fuel used in motor vehicles had been limited to 500 ppm sulfur since 1993. The sulfur limit was reduced to 15 ppm beginning in September 1, 2006. (A federal diesel rule similarly limits sulfur content nationwide for on-road vehicles to 15 ppm, which began on October 15, 2006).

California In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, the CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing) off-road heavy-duty diesel vehicles in California (CARB 2007c). Any person, business, or government agency that owns or operates diesel-powered off-road vehicles in California (except for agricultural or personal use, or for use at ports or intermodal rail yards) with engines with maximum power of 25 horsepower or greater are subject to the regulation. The regulation applies to vehicles commonly used in construction, mining, rental, airport ground support, and other industries. Out-of-state companies doing business in California are also subject to the regulation.

California On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

In 2008, the CARB approved a regulation (CARB 2007c) to reduce emissions from existing trucks and buses operating in California significantly. Affected vehicles include on-road, heavy-duty, diesel-fueled vehicles with a gross vehicle weight rating (GVWR) greater than 14,000 pounds; yard trucks with off-road certified engines; and diesel-fueled shuttle vehicles of any GVWR. Out-of-state trucks and buses that operate in California are also subject to the regulation. Approximately 170,000 businesses in nearly all industry sectors in California, and almost a million vehicles that operate on California roads each year, are affected. Some common industry sectors that operate vehicles subject to the regulation include for-hire transportation; construction, manufacturing, retail, and wholesale trade; vehicle leasing and rental; bus lines; and agriculture.

Naturally Occurring Asbestos

In July 2002, the CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize naturally occurring asbestos emissions (CARB 2007d). The regulation requires application of best management practices to control fugitive dust in areas known to have naturally occurring asbestos (NOA), and it requires notification to the local air district prior to commencement of ground-disturbing activities.

National Emission Standard for Hazardous Air Pollutants 40 CFR 61

The National Emission Standard for Hazardous Air Pollutants (NESHAP) is an asbestos standard that protects the general public from asbestos exposure due to demolition or demolition activities. The NESHAP requires surveys for suspect materials, notification of intent to renovate or demolish or remove regulated asbestos-containing materials (ACMs) before demolition or demolition activities, and proper management of asbestos-containing waste.

Asbestos Standard for the Construction Industry

The Federal Occupational Safety and Health Administration (OSHA) regulates asbestos as a worker health and safety issue through the Asbestos Standards for the Construction Industry (ASCI). EPA regulations concerning the identification, handling, management, and abatement of ACMs is found in the Asbestos Hazard Emergency Response Act (AHERA) and the NESHAP.

The ASCI (29 CFR 1926.1101; 8 California Code of Regulations 1529), administered by OHSA and Cal-OSHA, regulates asbestos exposure in the workplace for abatement workers and contractors. The ASCI:

- Specifies how workers and the public are to be protected during removal;
- Provides medical surveillance requirements for workers;
- Provided detailed requirements for how asbestos is to be removed; and,
- Defines training requirements for abatement personnel.

Building materials containing at least 1% asbestos are considered ACMs and should be managed according to OSHA requirements.

2.4.3 Existing Toxic Air Contaminants Levels

Ambient levels of selected TACs are measured by the CARB at several locations in southern California. The closest TAC monitoring stations to San Diego are in El Cajon and Chula Vista, approximately 30 miles east and 45 miles south of the Proposed Project site, respectively. Both of these stations may potentially contain higher, as well as different, TAC concentrations than those near the Proposed Project because of the distance from the Project site and the myriad of land uses in those areas. Because DPM is not collected at the two monitoring stations, background concentrations for this TAC were obtained from the 2009 California Almanac of Emissions and Air Quality (CARB 2009). The annual average concentration for DPM in the SDAB is 1.4 micrograms per cubic meters ($\mu g/m^3$) with an estimated cancer risk of 420 chances in one million.

2.5 GREENHOUSE GASES

2.5.1 Greenhouse Gas Background

As previously mentioned in Section 2.2.3, global climate change refers to changes in average climatic conditions on Earth, as a whole, including temperature, wind patterns, precipitation and storms. Global temperatures are moderated by naturally occurring atmospheric gases that include water vapor, CO_2, CH_4 and N_2O. In addition to the naturally occurring gases, man-made compounds also act as GHGs; common examples include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6). These compounds are the result of a number of activities including vehicular use, energy consumption/production, manufacturing and cattle farming. These man-made compounds increase the natural concentration of GHGs in the atmosphere and are commonly believed to result in a phenomenon referred to as "global warming." A summary of the types of GHGs is provided below.

Types of Greenhouse Gases

Water vapor is the most abundant and variable GHG in the atmosphere. It is not considered a pollutant; it maintains a climate necessary for life. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from ice and snow, and transpiration from plant leaves (Association of Environmental Professionals [AEP] 2007).

CO_2 is an odorless, colorless GHG. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human-caused) sources of carbon dioxide include burning fuels, such as coal, oil, natural gas, and wood. CO_2 concentrations are currently around 379 ppm of the total earth's atmosphere; some scientists say that concentrations may increase to 1,130 CO_2 equivalent (CO_2e) ppm by 2100 as a direct result of anthropogenic sources

(IPCC 2007). Some predict that this will result in an average global temperature rise of at least 7.2°Fahrenheit (United Nations Intergovernmental Panel on Climate Change [IPCC] 2007).

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere, and is defined as the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas" (EPA 2006). The reference gas for GWP is CO_2; therefore, CO_2 has a GWP of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP of 21, and N_2O, which has a GWP of 310.

CH_4 is a gas and is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

N_2O, also known as laughing gas, is a colorless gas. N_2O is produced by microbial processes in soil and water, including reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (nylon production, nitric acid production) also emit N_2O. It is used in rocket engines, as an aerosol spray propellant, and in race cars. During combustion, NO_x (NO_x is a generic term for mono-nitrogen oxides, NO and NO_2) is produced as a criteria pollutant and is not the same as N_2O. Very small quantities of N_2O may be formed during fuel combustion by nitrogen and oxygen (American Petroleum Institute [API] 2004).

HFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol. Today, HFCs replaces the CFCs. HFC compounds have a GWP of between 140 and 11,700, with the lower end being for HFC-152a and the higher end being for HFC-23.

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest GWP of any gas – 23,900. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Ozone is a GHG; however, unlike the other GHGs, ozone in the troposphere (i.e., the lowest portion of the earth's atmosphere, up to 12 miles from the surface of the earth) is relatively short-lived and therefore is not global in nature. According to the CARB, it is difficult to make an accurate determination of the contribution of ozone precursors (NO_x and Volatile Organic Compounds, also called VOCs) to global warming (CARB 2007a).

2.5.2 Greenhouse Gas Regulations

International Greenhouse Gas Treaties

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol is a treaty made under the UNFCCC, and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

In December 2009, the United Nations representatives met in Copenhagen to attempt to develop a framework for addressing global climate change issues in the future. The Copenhagen Accord was not, however, ratified with a binding accord, and no further measures were adopted at that meeting.

Federal Greenhouse Gas Regulations

In the past, the EPA has not regulated GHGs under the Clean Air Act. However, the U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* that CO_2 is an air pollutant, as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. After a thorough examination of the scientific evidence and careful consideration of public comments, the EPA announced on December 7, 2009 that GHGs threaten the public health and welfare of the American people.

> *Endangerment Finding*: The EPA Administrator finds that the current and projected concentrations of the six key well-mixed GHG – CO_2, CH_4, N_2O, HFC, PFC, and SF_6 – in the atmosphere threaten the public health and welfare of current and future generations.
>
> *Cause or Contribute Finding*: The EPA Administrator finds that the combined emissions of these well-mixed GHG from motor vehicles and motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

The endangerment findings do not themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the EPA's proposed GHG emissions standards for light duty vehicles, which were jointly proposed by EPA and the Department of Transportation's National Highway Safety Administration on September 15, 2009.

Mandatory Reporting Rule of Greenhouse Gases

On January 1, 2010, the EPA started, for the first time, requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. This new program will cover approximately 85 percent of the nation's GHG emissions and apply to roughly 10,000 facilities. Fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 metric tons or more of CO_2e per year will be required to report GHG emissions data to EPA annually. This reporting threshold is equivalent to about the annual GHG emissions from 4,600 passenger vehicles. Vehicle and engine manufacturers outside of the light-duty sector have begun phasing in GHG reporting with vehicle/engine model year 2011.

Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standard determines the fuel efficiency of certain vehicle classes in the United States. In 2007, as part of the Energy and Security Act of 2007, CAFE standards were increased for new light-duty vehicles to 35 miles per gallon by 2020. In May 2009, Present Obama announced plans to increase CAFE standards to require light duty vehicles to meet an average fuel economy of 35.5 miles per gallons by 2016.

California Greenhouse Gas Regulations

California Code of Regulations, Title 24, Part 6

Although not originally intended to reduce GHG emissions, California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The GHG emission inventory was based on Title 24 standards as of October 2005; however, Title 24 has been updated as of 2008 and standards were phased in as of January 2010. The latest Title 24 standards are anticipated to increase energy efficiency by 15%, thereby reducing GHG emissions from energy use by 15%. Energy efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions. Therefore, increased energy efficiency results in decreased GHG emissions.

Assembly Bill 75

AB 75 was passed in 1999, and mandates state agencies to develop and implement an integrated waste management plan to reduce GHG emissions related to solid waste disposal. In addition, the bill mandates that community service districts providing solid waste services report the disposal and diversion information to the appropriate city, county, or regional jurisdiction. Since 2004, the bill requires diversion of at least 50 percent of the solid waste from landfills and transformation facilities, and submission to the California Integrated Waste Management Board (CIWMB) of an annual report describing the diversion rates.

Executive Order D-16-00

This executive order (EO) signed by Governor Gray Davis on August 2, 2000, established a state sustainable building goal. The sustainable building goal is to site, design, deconstruct, construct, renovate, operate, and maintain state buildings that are models of energy, water, and materials efficiency; while providing healthy, productive and comfortable indoor environments and long term benefits to Californians." As with the California Energy Code, reductions in energy usage provided by sustainable building design would result in reduced GHG emissions.

Senate Bill (SB) 1771

SB 1771 (Sher) enacted on September 30, 2000 requires the Secretary of the Resources Agency to establish a nonprofit public benefit corporation, to be known as the "California Climate Action Registry," for the purpose of administering a voluntary GHG emission registry. The State Energy Resources Conservation and Development Commission (commonly called the California Energy Commission [CEC]) was required to develop metrics for use by the Registry and to compile the State's inventory of GHG emissions by January 1, 2002, and to update the inventory every five years thereafter.

Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases

In a response to the transportation sector accounting for more than half of California's CO_2 emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493 requires the CARB to set GHG emission standards for passenger vehicles, light duty trucks (and other vehicles determined to be vehicles whose primary use is noncommercial personal transportation) in the state, manufactured in year 2009 and all subsequent model years. In setting these standards, the CARB considered cost effectiveness, technological feasibility, and economic impacts. The CARB adopted the standards in September 2004. When fully phased in, the near-term (years 2009 to 2012) standards would result in a reduction of approximately 22 percent in GHG emissions compared to the emissions from the year 2002 fleet, while the midterm (years 2013 to 2016) standards would result in a reduction of approximately 30 percent. Some currently used technologies that achieve GHG reductions include small engines with superchargers, continuously variable transmissions, and hybrid electric drives. To set its own GHG emissions limits on motor vehicles, California needed to receive a waiver from the EPA. The EPA approved the waiver in June 2009.

Executive Order S-7-04

The EO signed by Governor Schwarzenegger on April 20, 2004, designated California's 21 interstate freeways as the California Hydrogen Highway Network" and direct the CalEPA and all other relevant state agencies to:

> …plan and build a network of hydrogen fueling stations along these roadways and in urban centers that they connect, so that by 2010, every Californian will have access to hydrogen fuel, with a significant and increasing percentage from clean, renewable sources.

The EO also directs the CalEPA, in concert with State Legislature, and in consultation with the CEC and other relevant state and local agencies to develop California Hydrogen Economy Blueprint Plan "for the rapid transition to a hydrogen economy in California" by January 1, 2005. The Plan is to be updated biannually. Recommendations to the Governor and State Legislature are to include among others:

> Promoting environmental benefits (including global climate change) and economic development opportunities resulting from increased utilization of hydrogen for stationary and mobile applications; policy strategies to ensure hydrogen generation results in the lowest possible emissions of GHG and other air pollutants.

Executive Order S-3-05

EO S-3-05, signed by Governor Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to year 1990 levels by year 2020, and for an 80 percent reduction in GHG emissions by year 2050. EO S-3-05 also calls for the CalEPA to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. The first of these reports, "Scenarios of Climate Change in California: An Overview," was published in February 2006.

The report uses a range of emissions scenarios developed by the IPCC to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The report then presents analysis of future climate in California under each warming range.

As shown above, each emissions scenario would result in substantial temperature increases for California. According to the report, substantial temperature increases would result in a variety of impacts to the people, economy and environment of California associated with a projected increase in extreme conditions; the severity of the impacts would depend upon actual future emissions of GHGs and associated warming. Under the report's emissions scenarios, the impacts of global warming in California are anticipated to include, but are not limited to, public health, biology, rising sea levels, hydrology and water quality, and water supply.

Senate Bill 1505

Largely in response to EO S-7-04, SB 1505 (Lowenthal), passed by the legislature and signed by the governor on September 30, 2006, requires the CARB to adopt regulations by July 1, 2008 that ensure the production and use of hydrogen for transportation purposes contributes to the reduction of GHG emissions, criteria pollutants, and TACs.

Assembly Bill 32 – Global Warming Solution Act of 2006

In the fall of 2006, Governor Schwarzenegger signed California Assembly Bill (AB) 32, the global warming bill, into law. AB 32 required that by January 1, 2008, the CARB determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. Key AB 32 milestones are as follows:

- June 20, 2007 – Identification of "discrete early action GHG emission reduction measures."
- January 1, 2008 – Identification of the year 1990 baseline GHG emission levels and approval of a statewide limit equivalent to that level. Adoption of reporting and verification requirements concerning GHG emissions.
- January 1, 2009 – Adoption of a scoping plan for achieving GHG emission reductions.
- January 1, 2010 – Adoption and enforcement of regulations to implement the "discrete" actions.
- January 1, 2011 – Adoption of GHG emission limits and reduction measures by regulations.
- January 1, 2012 – GHG emission limits and reduction measures adopted in 2011 become enforceable.

Since the passage of AB 32, ARB published Proposed *Early Actions to Mitigate Climate Change in California*. There are no early action measures specific to new land use development projects included in the list of 36 measures identified for ARB to pursue during previous calendar years 2007, 2008, 2009, and 2010. Also, this publication indicated that the issue of GHG emissions in CEQA and General Plans was being deferred for later action, so the publication did not discuss any early action measures generally related to CEQA or to land use decisions. The ARB adopted its Scoping Plan in December 2008, which provided estimates of the year 1990 GHG emissions level, and identified sectors for the reduction of GHG emissions.

The CARB has established the year 1990 level of GHG emissions at 427 million metric tons (MMT) of CO_2e emissions (CARB 2007a). The CARB estimates that a reduction of 173 MMT net CO_2e emissions below business as usual (BAU) would be required by year 2020 to meet the year 1990 levels. This amounts to a 15 percent reduction from today's levels, and a 28.3 percent reduction from projected BAU levels in year 2020.

According to the CEC, transportation accounts for approximately 41 percent of California's year 2004 GHG emissions (CEC 2006). Growth in California has resulted in VMT by California residents increasing three-fold during the period from 1975 to 2004. To reduce the use of carbon-based fuels, the Governor of California signed EO S-01-07, calling for a 10 percent reduction in carbon intensity in fuels by year 2020. In addition, President Bush signed new fuel efficiency standards (CAFE standards) that would increase vehicle mileage to 35 miles per gallon by year 2020. All of these measures are designed to reduce emissions of GHGs.

<u>Senate Bill 1368</u>

In 2006, the California Legislature passed SB 1368, which requires the Public Utilities Commission (PUC) to develop and adopt a "GHGs emission performance standard" by February 1, 2007, for the private electric utilities under its regulation. The PUC adopted an interim standard on January 25, 2007, but has formally requested a delay for the local publicly owned electric utilities under its regulation. These standards apply to all long-term financial commitments entered into by electric utilities (California PUC 2006). The CEC was required to adopt a consistent standard by June 30, 2007. However, this date was missed, and the CEC will address the concerns of the Office of Administrative Law (OAL) and resubmit the rulemaking as soon as possible. The rulemaking then must be approved by the OAL before it can take effect.

In the meantime, the PUC and CEC adopted a preferred loading order to meet goals for satisfying the state's growing demand for electricity while reducing GHG emissions. The preferred loading order places top priority on first increasing energy efficiency and demand response, then providing new generation from renewable and distributed generation resources, and, lastly, providing clean fossil-fueled generation and infrastructure improvements.

Executive Order S-01-07

This EO signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and direct CARB to determine if a LCFS can be adopted as a discrete early action measure pursuant to AB 32. The CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in 2010. EO S-01-07 also instruct sthe CalEPA to coordinate activities between the University of California, the CEC, and other state agencies to develop and propose a draft compliance schedule to meet the 2020 target.

Senate Bill 97 – CEQA: Greenhouse Gas Emissions

In August 2007, Governor Schwarzenegger signed into law SB 97 – CEQA: Greenhouse Gas Emissions, stating, "This bill advances a coordinated policy for reducing GHG emissions by directing the Office of Planning and Research (OPR) and the Resources Agency to develop CEQA guidelines on how state and local agencies should analyze, and when necessary, mitigate GHG emissions." Specifically, SB 97 requires OPR to prepare, develop, and transmit to the Natural Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including but not limited to, effects associated with transportation or energy consumption. The Natural Resources Agency certified and adopted the guidelines on December 31, 2009. The Office of Administrative Law has adopted the guidelines and it became effective on March 18, 2010. The new CEQA guidelines provide the lead agency with broad discretion in determining significance thresholds and the methodology used in assessing the impacts of GHG emissions in the context of a particular project. This guidance is provided because the methodology for assessing GHG emission is expected to evolve over time. The OPR guidance also states that the lead agency can rely on qualitative or other performance based standards for estimating the significance of GHG emissions.

Senate Bill 375

Senate Bill (SB) 375 provides for a new planning process to coordinate land use planning and regional transportation plans and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires regional transportation plans, developed by Metropolitan Planning Organizations (MPOs) relevant to the Proposed Project area to incorporate a Sustainable Communities Strategy (SCS) in their regional transportation plans that will achieve GHG emission reduction targets set by CARB. SB 375 also includes provisions for streamlined California Environmental Quality Act (CEQA) review for some infill projects such as transit oriented development. SB 375 will be implemented over the next several years.

SB 375 is similar to the Regional Blueprint Planning Program, established by the California Department of Transportation, which provides discretionary grants to fund regional transportation and land use plans voluntarily developed by Metropolitan Planning Organizations working in cooperation with Council of Governments. The scoping plan adopted by CARB in December of 2008 relies on the requirements of SB 375 to implement the carbon emissions reductions anticipated from land use decisions.

The San Diego Association of Governments (SANDAG) developed its first Regional Transportation Plan (RTP) subject to the provisions of SB 375, which requires that MPOs prepare a SCS as part of the RTP. The SCS must demonstrate how development patterns and the transportation network, policies, and programs can work together to achieve the GHG emission reduction targets for cars and light trucks that will be established by CARB, if there is a feasible way to do so. The SANDAG Board of Directors released the Draft 2050 RTP and its SCS for public review and comment at its April 22, 2011 meeting. The release of the Draft 2050 RTP began the public comment period which extended through June 30, 2011. The Draft 2050 RTP and its SCS were developed following more than two years of planning, technical development, outreach, and public input. The 2050 RTP was approved by the SANDAG Board of Directors on October 28, 2011.

Executive Order S-13-08

EO S-13-08, signed by Governor Schwarzenegger on November 14, 2008, enhance the state's management of climate impacts from sea level rise, increased temperatures, shifting precipitation and extreme weather events. One key benefit that the EO S-13-08 have facilitated California's first comprehensive climate adaptation strategy. This strategy will improve coordination within state government and adapt the way work so that better planning can more effectively address climate impacts to human health, the environment, the state's water supply and the economy. Another benefit from the EO S-13-08 includes providing consistency and clarity to state agencies on how to address sea level rise in current planning efforts, reducing time and resources unnecessarily spent on developing different policies using different scientific information.

Executive Order S-14-08.

On November 17, 2008, Governor Schwarzenegger issued EO S-14-08. This EO focuses on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. The governor’s order requires that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the order directs state agencies to take appropriate actions to facilitate reaching this target. The Resources Agency, through collaboration with the CEC and Department of Fish and Game, is directed to lead this effort. Pursuant to a Memorandum of Understanding between the CEC and Department of Fish and Game creating the Renewable

Energy Action Team, these agencies will create a "one-stop" process for permitting renewable energy power plants.

Executive Order S-21-09.

EO S-21-09 was issued by the Governor on September 15, 2009. EO S-21-09 requires that the CARB, under its AB 32 authority, adopt a regulation by July 31, 2010 that sets a 33 percent renewable energy target as established in EO S-14-08. Under EO S-21-09, the CARB will work with the PUC and CEC to encourage the creation and use of renewable energy sources, and will regulate all California utilities. The CARB will also consult with the Independent System Operator and other load balancing authorities on the impacts on reliability, renewable integration requirements, and interactions with wholesale power markets in carrying out the provisions of the EO. The order requires the CARB to establish highest priority for those resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health. On September 23, 2010, CARB adopted regulations to implement a "Renewable Electricity Standard," which would achieve the goal of the EO with the following intermediate and final goals: 20% for 2012–2014; 24% for 2015–2017; 28% for 2018–2019; 33% for 2020 and beyond. Under the regulation, wind; solar; geothermal; small hydroelectric; biomass; ocean wave, thermal, and tidal; landfill and digester gas; and biodiesel would be considered sources of renewable energy. The regulation would apply to investor-owned utilities and public (municipal) utilities.

California Greenhouse Gas Programs and Plans

California Energy Commission: New Solar Homes Partnership

The New Solar Homes Partnership (NSHP) is a component of the California Solar Initiative and has a goal to produce 400 megawatts of solar electricity on approximately 160,000 homes by year 2017. To qualify for the program, a new home must achieve energy efficiency levels greater than the requirements of the year 2005 Building Title 24 Standards. The builder can choose to comply with either of two tiers of energy efficiency measures: Tier I requires a 15 percent reduction from Title 24 Standards; or Tier II, which requires a 35 percent reduction overall and 40 percent in the building's space cooling (air conditioning) energy compared to Title 24 (CEC 2007). In addition, all appliances must have an Energy Star rating, which indicates that the appliance is consistent with the international standard for energy efficient consumer products.

California Air Resources Board: Interim Significance Thresholds

In October 2008, the CARB released interim guidance on significance thresholds for industrial, commercial and residential projects (CARB 2008d). The draft proposal for residential and commercial projects states that a project would not be significant if it complies with a previously approved plan that addresses GHG emissions, or meets an energy use performance standard defined as CEC's Tier II Energy Efficiency goal (specified as 35 percent above Title 24 requirements) along with "as yet to be defined" performance standards for water, waste and transportation or is below an "as yet to be developed" threshold for GHG emissions tons per year (tpy). As such, CARB did not establish a threshold of significance.

California Air Resources Board: Scoping Plan

On December 11, 2008, the CARB adopted the Scoping Plan (CARB 2008c) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. The measures in the Scoping Plan approved by the Board will be in place by year 2012, with further implementation details and regulations to be developed, followed by the rulemaking process to meet the 2012 deadline. Measures applicable to development projects include the following:

- Maximum energy efficiency building and appliance standards, including more stringent building codes and appliance efficiency standards, and solar water heating;
- Use of renewable sources for electricity generation, such as photovoltaic solar associated with the Million Solar Roofs program;
- Regional transportation targets, including integration of development patterns and the transportation network to reduce vehicle travel, as identified in SB 375; and
- Green Building strategy, including siting near transit or mixed use areas; zero-net-energy buildings; "beyond-code" building efficiency requirements; and the use of the CEC's Tier II Energy Efficiency goal.

Relative to transportation, the Scoping Plan includes nine measures or recommended actions. One of these is measure T-3, Regional Transportation-Related Greenhouse Gas Targets, which relies on SB 375 implementation to reduce GHG emissions from passenger vehicles through reducing vehicle miles traveled. The other measures are related to vehicle GHG, fuel and efficiency measures and would be implemented statewide rather than on a project-by-project basis.

California Natural Resources Agency: CEQA Guidelines

The Natural Resources Agency adopted CEQA Guidelines Amendments on December 30, 2009, and transmitted them to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative law completed its review and filed the amendments with the secretary of state. The amendments became effective on March 18, 2010. The amended guidelines establish several new CEQA requirements concerning the analysis of GHGs, including the following:

- Requiring a lead agency to "make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project" (Section 15064(a)).
- Providing a lead agency with the discretion to determine whether to use quantitative or qualitative analysis or performance standards to determine the significance of greenhouse gas emissions resulting from a particular project (Section 15064.4(a)).
- Requiring a lead agency to consider the following factors when assessing the significant impacts from greenhouse gas emissions on the environment.

- The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. (Section 15064.4(b))
- Allowing lead agencies to consider feasible means of mitigating the significant effects of greenhouse gas emissions, including reductions in emissions through the implementation of project features or off-site measures, including offsets that are not otherwise required (Section 15126.4(c)).

The amended guidelines also establish two new guidance questions regarding GHG emissions in the Environmental Checklist set forth in CEQA Guidelines Appendix G:

- Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The adopted amendments do not establish a GHG emission threshold, and instead allow a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The Natural Resources Agency also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions

Local Policies and Regulations: San Diego Association of Governments

San Diego Association of Governments: Climate Action Strategy

The SANDAG Climate Action Strategy serves as a guide to help policymakers address climate change as they make decisions to meet the needs of our growing population, maintain and enhance our quality of life, and promote economic stability (SANDAG 2010). The purpose of the strategy is to identify land use, transportation, and other related policy measures that could reduce GHG emissions from passenger cars and light-duty trucks as part of the development of the Sustainable Communities Strategy for the 2050 Regional Transportation Plan in compliance with SB 375. Other policy measures are also identified for buildings and energy use, protecting transportation and energy infrastructures from climate impacts, and to help SANDAG and other local agencies reduce GHG from their operations.

Local Policies and Regulations: City of San Diego

United States Mayors Climate Protection Agreement

The City of San Diego participates in the Cool Cities Program. The Cool Cities Program, in partnership with the International Council on Local Environment Initiatives (ICLEI), adopted a voluntary program that strives to meet sustainable goals by reducing GHGs and increasing energy efficiency. The participating cities make commitments to stop global warming by signing the United States Mayors Climate Protection Agreement, and also strive to meet the 2030 Challenge (refer to next section for a detailed description of this program). The Cool Cities Program also encourages its members to gradually achieve and complete five milestones: (1) establish a Cool Cities campaign, (2) engage the community to participate, (3) sign the United States Mayors Climate Protection Agreement, (4) take initial solution steps (initiation of early implementation actions), and (5) ultimately perform a global warming audit by adopting milestone, "Advanced Smart Energy Solutions." The City of San Diego is currently at Milestone 3 of the possible five milestones by being a signatory to United States Mayors Climate Protection Agreement.

The United States Mayors Climate Protection Agreement attempts to enact policies and programs that would reduce global warming pollution levels to 7 percent below year 1990 levels by year 2012, including efforts for conservation, CH_4 recovery for energy generation, waste to energy, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels. The Agreement also aims to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking the following 12 actions in participating communities:

1. Inventory global warming emissions in City operations and in the community, set reduction targets, and create an action plan.
2. Adopt and enforce land use policies that reduce sprawl; preserve open space; and create compact, walkable urban communities.
3. Promote transportation options such as bicycle trails, commute-trip reduction programs, incentives for carpooling, and public transit.
4. Increase the use of clean, alternative energy by, for example, investing in "green tags," advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste-to-energy technology.
5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting, and urging employees to conserve energy and save money.
6. Purchase only Energy Star rated equipment and appliances for City use.
7. Practice and promote sustainable building practices using the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program or a similar system.
8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel.
9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production.
10. Increase recycling rates in city operations and in the community.
11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO_2.
12. Help educate the public, schools, other jurisdictions, professional associations, business, and industry about reducing global warming pollution.

City of San Diego Sustainable Development Programs and Policies

The City of San Diego has taken a leadership position in fighting against climate change since 2002. The first action taken by the City was the establishment of the Sustainable Community Programs and indicators followed by adoption of a comprehensive strategy regarding energy efficiency and GHG reduction.

City of San Diego Adopted Sustainable Community Program Indicators

The City of San Diego adopted a Sustainable Communities Program in year 2002 and, in year 2004, published and adopted numerous sustainable indicators that would measure and, ultimately, improve the following areas of concern: traffic congestion, beach and bay clean up, sustainable and safe communities, adoption of "living wages," pursuit of energy independence, adoption of water conservation measures, energy efficiency, and adoption of species conservation plans. These indicators are being implemented by the Climate Protection Action Plan 2005.

City of San Diego: The Climate Protection Action Plan 2005

In 2005, the City of San Diego adopted its cornerstone document for climate change, the Climate Protection Action Plan 2005. The plan is loosely based on the criteria set by the Cities for Climate Protection Campaign prepared by the ICLEI. The City, a partner of ICLEI, prepared and implemented the program that aims to achieve sustainable development goals. The Plan addresses both GHG from emissions from communities (commercial, industrial, residential, and other) and from operation of the City as a government. The Plan consists of five major elements and depicts their relationship to climate change: Transportation, Energy, Waste, Urban Heat Island Effect, and Environmentally Preferable Purchasing. The Plan discusses local impacts of climate change, actions adopted by the City to achieve sustainable development goals, emissions baselines and forecasts, emissions reduction strategies, and mitigation measures. The City initiated implementation of the GHG reduction strategies by conducting a baseline GHG emissions inventory and setting up a baseline year of 1990 (per the Kyoto Protocol). A 15 percent reduction target relative to the year 1990 baseline was set to be achieved by year 2010.

City of San Diego: 2010 Memo on Addressing Greenhouse Gas for CEQA Projects

The City of San Diego has established an interim screening threshold for GHG emission analysis. The City is using an annual generation rate of 900 metric tons of GHGs to determine when further GHG analysis is required, based on the guidance in the California Air Pollution Control Officers Association (CAPCOA) report "CEQA & Climate Change" (CAPCOA 2008).

2.5.3 Existing Greenhouse Gas Levels

Global, National, State and Local Levels

The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The Panel concluded that a stabilization of GHGs at 400 to 450 ppm CO_2e concentration is required to keep global mean warming below 3.6º F (2º Celsius), which is assumed to be necessary to avoid dangerous climate change (AEP 2007).

In year 2004, total GHG emissions worldwide were estimated at 20,135 MMT of CO_2e emissions (United Nations Framework Convention on Climate Change 2006). The United States contributed the largest portion of GHG emissions at 35 percent of global emissions. In California, according to the CEC (2006), CO_2 accounts for approximately 84 percent of statewide GHG emissions, with CH_4 accounting for approximately 5.7 percent, and N_2O accounting for 6.8 percent. Other pollutants account for approximately 2.9 percent of GHG emissions in California. The transportation sector is the single largest category of California's GHG emissions, accounting for 41 percent of emissions statewide. CARB estimates that the year 1990 statewide CO_2e emissions level was 427 MMT (CARB 2007a). In year 2004, California produced 492 MMT of total CO_2 equivalent emissions. The total GHG emissions of the entire U.S. were 7,260 MMT of CO_2e emissions in 2005, of which 84 percent was CO_2 emission (EPA 2006). On a national level, approximately 33 percent of GHG emissions were associated with transportation and about 41 percent were associated with electricity generation.

According to the San Diego County GHG Inventory (SDCGHGI) that was prepared by the University of San Diego School of Law Energy Policy Initiative Center (EPIC) in 2008, San Diego County emitted 34 MMT of CO_2e emissions in 2006. The largest contributor of GHG in San Diego County was the on-road transportation category, which comprised 46 percent (16 MMT CO_2e) of the total amount. The second highest contributor was the electricity category, which contributed 9 MMT CO_2e, or 25 percent of the total. Together the on-road transportation and electricity categories comprised 71 percent of the total GHG emissions for the County. The remaining amount was contributed by natural gas consumption, civil aviation, industrial processes, off-road equipment, waste, agriculture, rail, water-borne navigation, and other fuels. By 2020, under the BAU scenario, regional GHG emissions are expected to be 43 MMT of CO_2e emissions.

Proposed Project Site

In its vacant state, the Project site is not a source of GHG emissions. Natural vegetation and soils temporarily store carbon as part of the terrestrial carbon cycle. Carbon is assimilated into plants as they grow, and then dispersed back into the environment when they die. Soil carbon accumulates from inputs of plants, roots, and other living components of the soil ecosystem (i.e., bacteria, worms, etc.). Soil carbon is lost through biological respiration, erosion, and other forms of disturbance.

2.5.4 Calculation Methodology

The Proposed Project could result in air quality and GHG emissions resulting from both construction and operational impacts. Construction impacts include short-term emissions associated with the construction of the Project. Operational impacts include long-term emissions associated with the traffic generated by the Project, as well as solid waste generation, water and energy consumption.

The equation below provides the basic calculation required to determine CO_2e from the total mass of a given GHG using the GWPs published by the IPCC.

Metric Tons of CO_2e = Metric Tons of GHG X GWP.

This method was used to evaluate GHG emissions during construction and operation of the Proposed Project. For this analysis, only CO_2, CH_4, and N_2O are considered due to the relatively large contribution of these gases in comparison to other GHGs produced during the Project construction and operation phase.

The air quality and GHG emission estimates were calculated using URBEMIS 2007. URBEMIS is a computer program that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, and office buildings; area sources such as gas appliances, wood stoves, fireplaces, and landscape maintenance equipment; and construction projects. URBEMIS, which stands for "Urban Emissions" is an air quality modeling program that estimates air pollution emissions in pounds per day (lbs/day) or tpy for various land uses, area sources, construction projects, and project operations. Several mitigation measures can also be specified to analyze the effects of mitigation on project emissions. It should be noted that the URBEMIS model is not able to quantify the GHG emission reduction effects of all mitigation measures. The URBEMIS 2007 model uses the CARB EMFAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions. URBEMIS 2007 includes ROG, NOx, CO, SOx, PM_{10}, $PM_{2.5}$, and CO_2 emissions factors.

Emissions are classified as direct and indirect. Direct emissions are associated with the production of emissions at the site. These would include the combustion of natural gas in heaters or stoves, the combustion of fuel in engines or construction vehicles, and fugitive emissions from valves and connections, which include methane as a component. Indirect emissions include the emissions from vehicles (both gasoline and diesel) delivering materials and equipment to the Project site or the use of electricity. Electricity produces emissions because of the common use of fossil fuels for the generation of electricity, especially in Southern California. It should be noted that URBEMIS 2007 was developed with the Title 24 standards as of October 2005.

Indirect GHG emissions are also associated with water use, as electricity is required to pump and treat water that would be used at the Proposed Project. Case studies documented by the U.S. EPA demonstrate that water treatment plants, in combination with the California electricity usage and GHG emission rate, generate up to 1.2 tons of CO_2 per million gallons of water used, due to electricity use.

Indirect GHG emission associated with trash services, and other services that might visit the Proposed Project are accounted for in the URBEMIS calculations, which incorporate the vehicle travel of diesel trucks that would visit and service the Proposed Project.

CAPCOA acknowledged that there is currently not one model that is capable of estimating all of a project's direct and indirect GHG emissions (CAPCOA 2008). However, CAPCOA has determined that the URBEMIS model is the best available model designed to model emissions associated with development of urban land uses. URBEMIS attempts to summarize criteria air pollutants and CO_2 emissions that would occur during construction and operation of new development. URBEMIS is publicly available and already widely used by CEQA practitioners and air districts to evaluate criteria air pollutants emissions against air district-adopted significance thresholds.

CAPCOA noted that one of the shortfalls of URBEMIS is that the model does not contain emission factors for GHGs other than CO_2, except for CH_4 from mobile sources, which is converted to CO_2e. This is not a major problem since CO_2 is the most important GHG from land development projects. Although the other GHGs have a higher global warming potential, a metric used to normalize other GHGs to CO_2e, they are emitted in far fewer quantities. URBEMIS does not calculate other GHG emissions associated with off-site waste disposal, wastewater treatment, emissions associated with goods and services consumed by the residents and workers supported by a project. Nor does URBEMIS calculate GHGs associated with consumption of energy produced off-site. (For that matter, URBEMIS does not report criteria air pollutant emissions from these sources either).

CAPCOA also points out that URBEMIS does not fully account for interaction between land uses in its estimation of mobile source operational emissions. Vehicle trip rates defaults are derived from the Institute of Transportation Engineers trip generation manuals. However, URBEMIS does allow the user to overwrite the default trip rates and characteristics with more project-specific data from a traffic study prepared for a project. For this Project, the traffic study used the trip generation rates from the City of San Diego's Traffic Generation Manual. All trip rates data are widely used and are generally considered worst-case or conservative. URBEMIS does not reflect "internalization" of trips between land uses, or in other words, the concept that a residential trip and a commercial trip are quite possibly the same trip, and, thus, URBEMIS counts the trips separately. There are some internal correction settings that the modeler can select in URBEMIS to correct for "double counting"; however, a project-specific "double-counting correction" is often not available. As such, the report represents a conservative worst-case scenario for the Project's GHG emissions.

3.0 THRESHOLDS OF SIGNIFICANCE

3.1 CRITERIA POLLUTANTS

A potentially significant impact to air quality would occur if the Project causes one or more of the following:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors (i.e., day care centers, schools, retirement homes, and hospitals or medical patients in residential homes which could be impacted by air pollutants) to substantial pollutant concentrations, including air toxins such as diesel particulates;
- Create objectionable odors affecting a substantial number of people;

The City of San Diego's emission-specific thresholds were derived from the SDAPCD's Regulation II, Rule 20.2, Table 20.2, Air Quality Impact Analysis (AQIA) Trigger Levels (SDCAPCD 1998). These thresholds are applicable as a screening criterion for potential significance. The threshold for ROG is based on significance criteria from the City of San Diego (2007). The threshold for $PM_{2.5}$ is based on significance criteria from the South Coast Air Quality Management District (SCAQMD 2009). The emission thresholds are shown in Table 5.

Table 5
AIR QUALITY EMISSIONS THRESHOLDS

Pollutant	Pounds/hour	Pounds/day	Tons/year
Carbon Monoxide (CO)	100	550	100
Oxides of Nitrogen (NO_x)	25	250	40
Particulate Matter (PM_{10})	-	100	15
Oxides of Sulfur (SO_x)	25	250	40
Lead and Lead Compounds	-	3.2	0.6
Reactive Organic Gases (ROG)	-	137	15
Fine Particulate Matter ($PM_{2.5}$)	-	55	10

Sources: County of San Diego APCD 1998.
City of San Diego 2011a.
SCAQMD 2009.

In the event that emissions exceed these thresholds, mitigation measures will be required to reduce the Project impacts to less than significant.

3.2 TOXIC AIR CONTAMINANTS EMISSIONS

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or Hazardous Air Pollutants (HAPs). In San Diego County, APCD Regulation XII establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit additional TACs. Under Rule 1210, emissions of TACs that result in a cancer risk of more than ten in one million, or a health hazard index of more than one are considered to have a significant impact.

With regard to evaluating whether a project would have a significant impact on sensitive receptors, air quality regulators typically define sensitive receptors as schools (preschool through 12th grade), hospitals, resident care facilities, day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Any project that has the potential to directly impact a sensitive receptor located within one mile and results in a health risk greater than ten in one million would cause a potentially significant impact.

The health risk assessment conducted for carcinogens is typically for a period of 70 years; however, due to the temporary construction duration of the Proposed Project, it is not meaningful to estimate quantitative carcinogenic health risks for this Project. In addition, no regulatory thresholds for adverse health risk effects due to acute (short-term) exposure to diesel particulate have been established.

3.3 OBJECTIONABLE ODORS

SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. A project that proposes a use which would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of offsite receptors.

3.4 GREENHOUSE GASES

To date, there is no local, regional, state, or federal regulation establishing a threshold of significance to determine project-specific impacts of GHG emissions on global warming. The recently amended CEQA Guidelines now allow lead agencies to develop significance thresholds for GHG impacts. However, given the small levels of emissions generated by typical development in relationship to the total amount of GHG emissions discussed in Section 2.5.3, emissions from typical development projects would not constitute a direct, significant impact. On the other hand, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change.

In order to serve as a guide for determining when a project triggers the need for a GHG significance determination, the City of San Diego has established an interim screening threshold for GHG emission analysis. Based on guidance in the CAPCOA report "CEQA & Climate Change," dated January 2008, the City is using an annual generation rate of 900 metric tons of GHGs to determine when further GHG analysis is required.

The CAPCOA report references the 900 metric ton guideline as a conservative screening threshold for requiring further GHG analysis and mitigation. This emission level is based on the amount of vehicle trips, the typical energy and water use, and other factors associated with projects. Table 6 identifies project typical types and sizes that are expected to emit approximately 900 metric tons or more of GHGs.

Table 6
PROJECT TYPES THAT REQUIRE A GHG ANALYSIS AND MITIGATION

Project Type	Project Size that Generates Approximately 900 Metric Tons of GHGs per Year
Single-Family Residential	50 units
Apartments/Condominiums	70 units
General Commercial Office Space	35,000 square feet
Retail Space	11,000 square feet
Supermarket/Grocery Space	6,300 square feet

Note: For project types that do not fit the categories in this table, a determination on the need for a GHG analysis will be made on a case-by-case basis, based on whether the project could generate 900 metric tons or more of GHGs.

According to the CARB's Scoping Plan, AB 32's goal of reducing GHGs to year 1990 levels by year 2020 would amount to a 28.3-percent reduction in emissions below BAU levels, accounting for growth in the state of California. BAU condition is defined as the emissions that would have occurred in the absence of reductions mandated under AB 32 (based on 2005 Building Code standards)[1].

Based on this guidance from CEQA Guidelines, the City and CAPCOA, and CARB, if the Project would generate GHG emissions in excess of 900 MT per year, additional GHG analysis and mitigation/emissions reduction measures are required. A reduction of the Project's GHG emissions by at least 28.3 percent over that which would have been expected to occur in the BAU condition will result in a conclusion of no significant impact. Absent a reduction of GHG emissions of at least 28.3 percent, the impact is considered significant.

[1] 2005 Building Code standards are used because they were the adopted standards at the time AB 32 was adopted.

4.0 IMPACTS

This section evaluates potential impacts of the Proposed Project related to the generation of criteria pollutants; including CO, SO_2, NO_2, O_3, PM_{10}, $PM_{2.5}$, and Pb; TACs, including DPM; and GHGs including CO_2, CH_4, and N_2O. The Proposed Project could result in both construction and operational air quality impacts. Construction impacts include short-term emissions associated with the construction of the Project. Typical operational impacts include long-term emissions associated with the traffic generated by the Project as well as area sources such as water and energy consumptions, landscaping, consumer products use, and architectural coatings.

4.1 CONSTRUCTION EMISSIONS

4.1.1 Construction Criteria Pollutant Impacts

Construction activities, including soil disturbance dust emissions and combustion pollutants from on-site construction equipment and from off-site trucks hauling dirt, cement, or building materials, would create a temporary addition of pollutants to the local airshed. The Project applicant has developed a construction schedule that provides the estimated timeline construction stages for all three Phases of the Proposed Project. Three different construction phasing scenarios were analyzed. Scenario 1 assumes that Phase 1, Phase 2, and Phase 3 would be constructed in a sequential order and it would take approximately 28 months for Phase 1, 22 months for Phase 2, and 31 months for Phase 3 completion. Scenario 2 assumes that Phase 1 and Phase 2 would occur simultaneously, and Phase 3 would occur after the completion of Phases 1 and 2. Phases 1 and 2 would be completed in 28 months, and Phase 3 in 31 months. Scenario 3 assumes that all three Phases would occur simultaneously and would be completed in 40 months. The phasing schedule is an estimate only subject to change based upon market conditions.

Each Phase of the Proposed Project involves grading and/or excavating and the construction of buildings. For the purpose of the air quality analysis, with some exceptions, it was assumed that most of the grading and excavation would occur during the first Phase, so that building construction activities and functions could be moved forward. For conservative purposes, each construction phase was analyzed under heavy construction activities periods to facilitate conservative evaluation of a maximum emission scenario.

Construction emissions were estimated using the URBEMIS model, Version 9.2.4 (Rimpo and Associates 2007) and construction equipment estimates based on default values in the model. It was assumed that dust control measures (watering two times daily) would be employed to reduce emissions of fugitive dust during site grading and cut and fill operations. The assumptions used in this analysis are discussed below.

Each construction phase will occur in four stages. The first stage is Site Grading. During this stage, the Project Site will be graded and excavated for paving and pouring of the foundation pads. For this phase, the following assumptions were made:

- A total of up to 23 acres will be graded and excavated.
- Site excavation would require export of approximately 503,970 cubic yards (cy).

- At any given time, the maximum acreage disturbed per day will be 1 ½ acre.
- Construction equipment required will consist of one tracked loader, one wheeled loader, one motor grader, and one water truck. This assumption was based on the default equipment usage in the Users Manual for the URBEMIS model.
- Mass grading will be completed during a 12- to 20-week time period at the beginning of each construction phasing scenario.

The other construction stages will consist of the following: 1) Building Construction, 2) Architectural Coating Application, and 3) Asphalt Paving. The following assumptions are applicable to the Building Construction:

- Building construction will be completed during a 6- to 18-month period beginning after completion of site grading.
- The construction equipment required will consist of one crane, three forklifts, one other equipment, and one water truck. This assumption was based on experience with previous projects.

The major assumptions regarding architectural coating applications include the following:

- The maximum ROG content of coatings will be 100 grams/liter (g/L). This is the current limit for "flats coatings" in Rule 67. A limited amount of other types of coatings may be used. A project design measure must be adopted to include this requirement.
- High-Volume, Low-Pressure (HVLP) spray guns will be used. HVLP guns provide a better transfer efficiency that reduces the amount of paint required. This assumption must also be included as a project design measure.
- Architectural coating is conducted over a 1-month period after building construction has been completed.

Emission estimates for asphalt paving were based on the following assumptions:

- Paving will occur over a 2-month period after most of the site grading and building foundations have been applied.
- A total of up to 22.14 acres will be paved.
- The construction used will include one grader, one paver, one paving equipment, one roller, and one off-highway truck that will be used primarily for watering.

During Project construction, all construction equipment operating on the Project site should meet EPA-Certified Tier 3 emissions standards, or higher according to the following:

January 1, 2012, to December 31, 2014: All offroad diesel-powered construction equipment greater than 50 horsepower (hp) shall meet Tier 3 offroad emissions standards at minimum. In addition, all construction equipment shall be outfitted with best available control technology (BACT) devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

Post-January 1, 2015: All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards at a minimum, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

A copy of each unit's certified tier specification, BACT documentation, and CARB or SDAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

The emission calculations were based on the assumption that equipment would comply with the applicable SDAPCD Regulations (including required mitigation), and be operating on site between the hours of 6:00 a.m. and 5:00 p.m. for an average of eight hours per day, five days per week. A copy of the URBEMIS model run is included in Appendix A.

Tables 7 through 9 summarize the estimated maximum daily construction emissions for each Phase of the three analyzed construction phasing scenarios per calendar year of Project construction. To evaluate the maximum daily and total construction emissions for the Project, the construction schedule, which provides week-by-week estimates of Project construction and equipment requirements, was used to develop calculations of total emissions from the individual components of the Project that would be undergoing construction simultaneously. Emission estimates have been prepared for the individual construction projects to evaluate the maximum daily emissions based on the Project construction schedule for each calendar year.

Table 7
CONSTRUCTION SCENARIO 1
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS (lbs/day)

Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 1 Construction Totals						
Phase 1	7.88	87.73	38.25	0.12	25.13	7.86
Phase 2	0	0	0	0	0	0
Phase 3	0	0	0	0	0	0
Sub-total	**7.88**	**87.73**	**38.25**	**0.12**	**25.13**	**7.86**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 2 Construction Totals						
Phase 1	9.50	86.16	59.18	0.12	25.57	8.26
Phase 2	0	0	0	0	0	0
Phase 3	0	0	0	0	0	0
Sub-total	**9.50**	**86.16**	**59.18**	**0.12**	**25.57**	**8.26**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 3 Construction Totals						
Phase 1	79.77	20.40	56.90	0.05	1.90	1.59
Phase 2	0	0	0	0	0	0
Phase 3	0	0	0	0	0	0
Sub-total	**79.77**	**20.40**	**56.90**	**0.05**	**1.90**	**1.59**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Table 7 (cont.)
CONSTRUCTION SCENARIO 1
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS (lbs/day)

Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 4 Construction Totals						
Phase 1	3.59	11.73	43.14	0.05	1.04	0.81
Phase 2	11.62	55.62	39.92	0.10	19.86	5.73
Phase 3	0	0	0	0	0	0
Sub-total	**15.21**	**67.35**	**83.06**	**0.15**	**20.90**	**6.54**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 5 Construction Totals						
Phase 1	0	0	0	0	0	0
Phase 2	9.62	10.40	29.62	0.03	0.84	0.67
Phase 3	5.98	61.19	28.67	0.13	23.25	6.57
Sub-total	**15.60**	**71.59**	**58.29**	**0.16**	**24.09**	**7.24**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 6 Construction Totals						
Phase 1	0	0	0	0	0	0
Phase 2	0	0	0	0	0	0
Phase 3	7.38	60.71	44.39	0.13	23.61	6.89
Sub-total	**7.38**	**60.71**	**44.39**	**0.13**	**23.61**	**6.89**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 7 Construction Totals						
Phase 1	0	0	0	0	0	0
Phase 2	0	0	0	0	0	0
Phase 3	15.89	10.95	33.51	0.05	0.91	0.68
Sub-total	**15.89**	**10.95**	**33.51**	**0.05**	**0.91**	**0.68**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 8 Construction Totals						
Phase 1	0	0	0	0	0	0
Phase 2	0	0	0	0	0	0
Phase 3	8.38	10.03	31.59	0.05	0.84	0.62
Sub-total	**8.38**	**10.03**	**31.59**	**0.05**	**0.84**	**0.62**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Table 8
CONSTRUCTION SCENARIO 2
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS (lbs/day)

Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 1 Construction Totals						
Phases 1 and 2	8.58	76.21	41.54	0.09	24.87	7.70
Phase 3	0	0	0	0	0	0
Sub-total	**8.58**	**76.21**	**41.54**	**0.09**	**24.87**	**7.70**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 2 Construction Totals						
Phases 1 and 2	16.36	105.68	114.69	0.09	29.29	10.27
Phase 3	0	0	0	0	0	0
Sub-total	**16.36**	**105.68**	**114.69**	**0.09**	**29.29**	**10.27**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 3 Construction Totals						
Phases 1 and 2	116.16	35.02	83.62	0.08	2.87	2.41
Phase 3	0	0	0	0	0	0
Sub-total	**116.16**	**35.02**	**83.62**	**0.08**	**2.87**	**2.41**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 4 Construction Totals						
Phases 1 and 2	6.10	23.95	67.38	0.08	1.85	1.48
Phase 3	0	0	0	0	0	0
Sub-total	**6.10**	**23.95**	**67.38**	**0.08**	**1.85**	**1.48**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 5 Construction Totals						
Phases 1 and 2	0	0	0	0	0	0
Phase 3	5.98	61.19	28.67	0.13	23.25	6.57
Sub-total	**5.98**	**61.19**	**28.67**	**0.13**	**23.25**	**6.57**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 6 Construction Totals						
Phases 1 and 2	0	0	0	0	0	0
Phase 3	7.38	60.71	44.39	0.13	23.61	6.89
Sub-total	**7.38**	**60.71**	**44.39**	**0.13**	**23.61**	**6.89**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 7 Construction Totals						
Phases 1 and 2	0	0	0	0	0	0
Phase 3	15.89	10.95	33.51	0.05	0.91	0.68
Sub-total	**15.89**	**10.95**	**33.51**	**0.05**	**0.91**	**0.68**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 8 Construction Totals						
Phases 1 and 2	0	0	0	0	0	0
Phase 3	8.38	10.03	31.59	0.05	0.84	0.62
Sub-total	**8.38**	**10.03**	**31.59**	**0.05**	**0.84**	**0.62**
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

Table 9
CONSTRUCTION SCENARIO 3
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS (lbs/day)

Source	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Year 1Construction Totals						
Phases 1, 2, and 3	12.01	105.92	57.56	0.12	23.20	8.31
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 2 Construction Totals						
Phases 1, 2, and 3	28.48	172.39	208.73	0.25	29.01	11.77
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 3 Construction Totals						
Phases 1, 2, and 3	33.52	44.76	120.08	0.13	2.86	2.24
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No
Year 4 Construction Totals						
Phases 1, 2, and 3	37.47	40.70	112.56	0.13	2.72	2.10
Daily Threshold	137	250	550	250	100	55
Exceeds Threshold?	No	No	No	No	No	No

As shown in Tables 7 through 9, the emissions associated with all three analyzed construction phasing scenarios would be below the daily thresholds for all Phases. Consequently, construction-related air quality impacts would be less than significant.

Project construction would employ dust control measures (i.e., watering twice daily) and would therefore be in compliance with strategies in the RAQS (SDAPCD 2009) for attaining and maintaining the air quality standards. Construction of the Proposed Project would therefore not conflict with or obstruct the implementation of the RAQS or applicable portions of the SIP. Emissions would be below the significance thresholds set forth by the SDAPCD. Furthermore, due to the fact that the construction phases of the Project are temporary in nature, Proposed Project construction would not result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, nor result in a cumulatively considerable net increase of ozone precursors (ROG and NOx), PM_{10} or $PM_{2.5}$. A less than significant impact would occur.

4.1.2 <u>Construction Diesel Particulate Matter</u>

DPM is not included as a criteria pollutant. However, it recognized by the state of California as containing carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the CAPCOA Air Toxics "Hot Spots" Program Risk Assessment Guidelines (CAPCOA 1993) as 24 hours per day, seven days per week, 365 days per year, for 70 years. DPM would be emitted from heavy equipment used in the construction process. The construction period of each Phase of the Project under any of three analyzed construction phasing scenarios would be much less than the 70 year period used for health risk determination.

Because of the temporary nature of Project construction and the fact that heavy equipment exhaust emissions are below the criteria pollutant significance threshold limits, exposure to diesel exhaust emissions during construction would not be significant.

4.1.3 Construction Naturally Occurring Asbestos

Chrysotile and amphibole asbestos (such as tremolite) occur naturally in certain geologic settings in California, most commonly in association with ultramafic rocks and along associated faults. Asbestos is a known carcinogen, and inhalation of asbestos may result in the development of lung cancer or mesothelioma. Exposing or disturbing rock and soil that contains naturally occurring asbestos can result in the release of fibers to the air and, consequently, public exposure. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos.

A review of the *General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Division of Mines and Geology 2000) was made. The guide shows that the Project site is not located in an area of potential naturally occurring asbestos. Also, the Geotech Report (Geotechnical Exploration, Inc. 2008) indicated that no findings of potential naturally occurring asbestos at the Project site. No further action is required. As such, Project construction NOA impacts would be less than significant.

4.1.4 Construction Odors

The only source of odor anticipated from Project construction will be exhaust emissions from the diesel equipment and haul trucks. Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. During construction, diesel equipment operating at various locations on the site may generate some nuisance odors; however, due to the temporary nature of construction, odors associated with Project construction would cease at the completion of construction period. Additionally, the odors would be temporary and would cease at the completion of construction activity. As such, Project construction would not cause an odor nuisance, and odor impacts would be less than significant.

4.2 OPERATIONAL EMISSIONS

4.2.1 Operational Criteria Pollutant Impacts

The operational impacts associated with the Proposed Project would include impacts associated with vehicular traffic, as well as area sources such as energy use, landscaping, consumer products use, and architectural coatings use. The Project evaluated in this study uses the trip generation rate information for each land uses from the Traffic Impact Analysis (TIA; Urban Systems Associates 2012). The Proposed Project has been evaluated for three scenarios, Phase 1, Phase 1 and 2, and Project Buildout (i.e., Phase 1, 2, and 3). According to the TIA, Phase 1 would generate a total of 9,888 average daily trips (ADT); Phase 1 and 2 would generate 17,812 ADT; and Project Buildout would generate 26,961 ADT.

The development is proposed for an area that has substantial existing developments in the surrounding area and the Proposed Project would therefore constitute "infill" development. This means that the Proposed Project would utilize existing transportation infrastructure and existing development in the Project area to reduce vehicle trips and therefore vehicle emissions. These infill development emission reductions are incorporated into the URBEMIS model by designating surrounding housing density, retail availability and employment centers.

Infill development, such as the Proposed Project, would also reduce emissions due to the location of homes closer to areas of employment and in an urban area, rather than located in more rural areas with homes farther from employment. URBEMIS indicates that, if the development were in a rural area, daily trip lengths would be greater by about 50% or about 5 miles per trip.

To reduce vehicle emissions from transportation sources and as a condition of the occupancy permit, the City shall require the Project applicant to provide bicycle racks and temporary storage lockers at the new facilities, to offer preferential parking for electric and hybrid vehicles, and to post signage that on-road delivery trucks and other vehicles greater than 10,000 pounds shall be shut off when not in use and shall not idle for more than 5 minutes.

Project Design Feature Air-1: Prior to approval of building permits, the following Project design features shall be included in the notes of the building permit and implemented prior to issuance of a certificate of occupancy:

- The Applicant shall use materials that exceed Title 24 standards to reduce thermal loss and energy demand, as feasible;
- The Applicant shall place signs in the loading docks area to inform truck drivers from idling for longer than five minutes, in compliance with state law;
- The Applicant shall provide informational packets locating nearby public transportation options to patrons and employees; and
- The Applicant shall provide electric vehicle charging stations, to encourage the use of zero emission vehicles.

The Project design features listed above would reduce criteria pollutants and GHG emissions to the extent feasible. Certain project design features can be accounted for within the URBEMIS model as mitigation measures ("URBEMIS Mitigation Measures"). Some of the measures are available in URBEMIS to analyze the emission reductions. These include the following:

- Increasing home energy efficiency beyond Title 24 standards;
- Infill development, including the development of housing units within an area that has existing development (within a ½ mile radius) (design feature);
- Infill development with retail use within a ½ mile radius (design feature);
- Bike and pedestrian measures including 100% of streets with bike paths and sidewalks on or adjacent to the streets (design feature).

The total operational emissions associated with vehicle sources and area sources including energy use, landscaping, consumer products use, hearth emissions, and architectural coatings use for maintenance purposes were estimated using the URBEMIS model, Version 9.2.4. Motor vehicle trips generated by the Project would be the predominate source of long-term Project emissions. It should be noted that the URBEMIS model does not contain San Diego-specific emission factors; therefore, emissions are based on California statewide averages. For the entrained road PM_{10} dust, the CARB methodology assumes that roadway silt loading for arterial roads is 0.035 grams per square meter. As shown in Tables 10 through 12, daily operational emissions would not exceed the regional thresholds for criteria pollutants. As such, the Project would result in a less than significant impact. No mitigation is required.

Table 10
SUMMARY OF ESTIMATED PHASE 1 OPERATIONAL EMISSIONS

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	2.80	3.69	6.77	0	0.02	0.02
Vehicular Sources	21.94	26.93	209.31	0.25	26.71	5.92
Total	25	31	216	<1	27	6
Daily Threshold (lbs/day)	137	250	550	250	100	55
Exceed Thresholds?	No	No	No	No	No	No

Table 11
SUMMARY OF ESTIMATED PHASES 1 AND 2 OPERATIONAL EMISSIONS

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	13.52	5.38	8.92	0	0.03	0.03
Vehicular Sources	37.80	48.20	371.61	0.43	44.13	12.85
Total	51	54	381	<1	44	13
Daily Threshold (lbs/day)	137	250	550	250	100	55
Exceed Thresholds?	No	No	No	No	No	No

Table 12
SUMMARY OF ESTIMATED PROJECT BUILDOUT OPERATIONAL EMISSIONS

Emission Source	Maximum Daily Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	36.48	9.44	13.75	0	0.05	0.05
Vehicular Sources	49.97	54.51	462.16	0.72	73.93	14.67
Total	86	64	476	<1	74	15
Daily Threshold (lbs/day)	137	250	550	250	100	55
Exceed Thresholds?	No	No	No	No	No	No

4.2.2 Operational Combined with Construction Impacts

Because the Project would be constructed in three phases, it is likely that operational activities would overlap with construction activities. Therefore, the total Proposed Project emissions were estimated during a year when construction and operational activities substantially overlap. Under Scenario 1 construction phasing plan, the Phase 2 construction and Phase 1 operation activities would overlap, and Phase 3 construction would overlap Phase 1 and 2 operations, respectively. Tables 13 and 14 presents the combined total of peak daily construction and operational emissions. The combined (construction plus operational) emissions are compared with the thresholds.

Table 13
COMBINED PHASE 2 CONSTRUCTION AND PHASE 1 OPERATIONAL EMISSIONS

	-ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Lbs/day[a]						
Phase 2 Construction						
Mass Grading Off-Road Diesel	2.26	10.50	10.40	0	0.61	0.56
Mass Grading On-Road Diesel	3.23	45.07	15.37	0.01	1.92	1.55
Mass Grading Worker Trips	0.02	0.04	0.65	0	0.01	0
Building Off-Road Diesel	2.40	12.04	9.62	0	0.76	0.70
Building On-Road Diesel	0.26	3.09	2.68	0.01	0.15	0.12
Building Worker Trips	0.53	1.02	16.09	0.02	0.19	0.10
Architectural Coatings Off-Gas	21.25	0	0.00	0	0	0
Architectural Coatings Worker Trips	0.01	0.01	0.16	0	0	0
Asphalt Off-Gas	0.11	0	0	0	0	0
Asphalt Off-Road Diesel	2.20	13.65	9.82	0	1.11	1.02
Asphalt On-Road Diesel	0.01	0.21	0.07	0	0.01	0.01
Asphalt Worker Trips	0.05	0.09	1.47	0	0.02	0.01
Construction Sub-total	32.33	85.72	66.33	0.04	4.78	4.07
Phase 1 Operations						
Area Sources[b]	2.80	3.69	6.77	0	0.02	0.02
Vehicular Emissions[b]	21.94	26.93	209.31	0.25	26.71	5.92
Operation Sub-total	25	31	216	<1	27	6
Combined Total	**57**	**116**	**282**	**0**	**32**	**10**
Screening-Level Thresholds	137	250	550	250	100	55
Above Screening-Level Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

[a]Fugitive dust measures were applied to control PM_{10} and $PM_{2.5}$ dust emissions in the URBEMIS model.
[b]Maximum pounds per day for summer or winter from URBEMIS model.

Table 14 COMBINED PHASE 3 CONSTRUCTION AND PHASES 1 AND 2 OPERATIONAL EMISSIONS						
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Lbs/day[a]						
Phase 3 Construction						
Off-Road Diesel	2.13	9.64	10.09	0	0.57	0.52
Mass Grading On-Road Diesel	3.83	51.51	17.97	0.13	2.24	1.78
Mass Grading Worker Trips	0.02	0.04	0.61	0	0	0
Building Off-Road Diesel	1.98	6.24	9.21	0	0.45	0.41
Building On-Road Diesel	0.40	4.36	4.15	0.02	0.23	0.17
Building Worker Trips	0.71	1.38	22.06	0.03	0.30	0.16
Architectural Coatings Off-Gas	1.15	0	0	0	0	0
Architectural Coatings Worker Trips	0.01	0.01	0.22	0	0	0
Asphalt Off-Gas	0.12					
Asphalt Off-Road Diesel	1.66	6.11	7.79	0	0.61	0.56
Asphalt On-Road Diesel	0.01	0.18	0.06	0	0.01	0.01
Asphalt Worker Trips	0.04	0.07	1.12	0	0.02	0.01
Sub-total Construction Sub-total	12.06	79.54	73.28	0.18	4.44	3.62
Phases 1 and 2 Operations						
Area Sources[b]	13.52	5.38	8.92	0	0.03	0.03
Vehicular Emissions[b]	37.80	48.20	371.61	0.43	44.13	12.85
Operation Sub-total	51	54	381	<1	44	13
Combined Total	**63**	**133**	**454**	**1**	**49**	**17**
Screening-Level Thresholds	137	250	550	250	100	55
Above Screening-Level Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

[a]Fugitive dust measures were applied to control PM_{10} and $PM_{2.5}$ dust emissions in the URBEMIS model.
[b]Maximum pounds per day for summer or winter from URBEMIS model.

The combined construction and operational emissions would be below the daily threshold and would therefore be less than significant under CEQA for all pollutants.

4.2.3 Operational Carbon Monoxide Hot Spots Impacts

CARB also recommends evaluation of the potential for the formation of locally high concentrations of CO, known as CO "hot spots." To verify that the Project would not cause or contribute to a violation of the 1-hour and 8-hour CO standards, a screening evaluation of the potential for CO "hot spots" was conducted. The TIA (Urban Systems Associates 2012) evaluated whether or not there would be a decrease in the level of service (LOS) at the roadways and/or intersections affected by the Proposed Project. The potential for CO "hot spots" was evaluated based on the results of the TIA. The Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998) was followed to determine whether a CO "hot spot" is likely to form due to Project-generated traffic. In accordance with the Protocol, CO "hot spots" are typically evaluated when (a) the level of service (LOS) of an intersection or roadway decreases to a LOS E or worse; (b) signalization and/or channelization is added to an intersection; and (c) sensitive receptors such as residences, commercial developments, schools, hospitals, etc. are located in the vicinity of the affected intersection or roadway segment.

The TIA evaluated 36 intersections (with and without the project) in the Project vicinity to evaluate the Existing Plus Project (Phase 1), Existing Plus Project (Phases 1 and 2), Existing Plus Project Buildout, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project (Phases 1, 2, and 3), and Long-term Cumulative (Year 2030) With Project conditions. The TIA evaluated LOS for each intersection for each condition. Based on the TIA, there are a total of five intersections under the analyzed scenarios where Project-related traffic will cause a significant degradation to LOS E or worse. Table 15 presents a summary of the LOS for each of the intersections evaluated by scenario.

Table 15
INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Existing + Project (Phase 1)		Existing + Project (Phases 1 and 2)		Existing + Project Buildout		Near-term With Project (Phase 1)		Near-term With Project (Phases 1 and 2)		Near-term With Project Buildout		Long-term (Year 2030) With Project	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Del Mar Heights Rd / I-5 NB Ramps	D	D	D	D	D	D	D	F	F	D	D	E	F	F
Del Mar Heights Rd / High Bluff Drive	C	C	C	D	C	D	C	E	E	E	C	E	E	F
Del Mar Heights Rd/El Camino Real	C	C	C	D	C	D	C	D	D	E	D	E	D	F
El Camino Real/ SR-56 EB On Ramp	B	C	B	C	B	C	B	C	C	D	B	D	C	F
Carmel Creek Road / Del Mar Trail	E	C	E	C	E	C	E	E	E	C	F	D	E	C

Source: Urban Systems Associates, Inc. 2012.

To evaluate the potential for CO "hot spots," the procedures in the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998) were used. As recommended in the Protocol, CALINE4 modeling was conducted for the intersections identified above for the scenario without Project traffic, and with the Project scenarios. Modeling was conducted based on the guidance in Appendix A of the Protocol to calculate maximum predicted 1-hour CO concentrations. Predicted 1-hour CO concentrations were then scaled to evaluate maximum predicted 8-hour CO concentrations using the recommended scaling factor of 0.7 for urban locations.

Inputs to the CALINE4 model were obtained from the TIA (Urban Systems Associates 2012). As recommended in the Protocol, receptors were located at locations that were approximately three meters from the mixing zone, and at a height of 1.8 meters. Emission factors from the EMFAC2007 model were used in the CALINE4 model.

In accordance with the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol, it is also necessary to estimate future background CO concentrations in the Project vicinity to determine the potential impact plus background and evaluate the potential for CO "hot spots" due to the Project. The existing maximum 1-hour and 8-hour background concentrations of CO that was measured at the downtown San Diego monitoring station for the period 2007 – 2009 of 8.7 and 5.2 ppm were used to represent existing plus Project and future maximum background 1-hour and 8-hour CO concentrations.

The CALINE4 model outputs are provided in Attachment A of this report. Tables 16a and 16b present a summary of the predicted CO concentrations (impact plus background) for the affected intersections evaluated under Existing Plus Project (Phase 1), Existing Plus Project (Phases 1 and 2), Existing Plus Project Buildout, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) Conditions. As shown in Tables16a and 16b, the predicted CO concentrations would be substantially below the 1-hour and 8-hour CAAQS for CO shown in Table 1 of this report. Therefore, no exceedances (hot spots) of the CO standard are predicted, and the Project would not cause or contribute to a violation of this air quality standard under Existing Plus Project (Phase 1), Existing Plus Project (Phases 1 and 2), Existing Plus Project Buildout, Near-term With Project (Phase 1), Near-term With Project (Phases 1 and 2), Near-term With Project Buildout, and Long-term Cumulative (Year 2030) conditions.

Table 16a
CO "HOT SPOTS" MODELING RESULTS – EXISTING PLUS PROJECT CONDITIONS

Intersection	Maximum 1-hour CO Concentration plus Background (ppm)		Maximum 8-hour CO Concentration plus Background (ppm)
	am	pm	
Existing Plus Project (Phase 1)			
Del Mar Heights Road/I-5 NB Ramps	10.7	10.6	6.6
Del Mar Heights Road/High Bluff Drive	10.3	10.5	6.5
Del Mar Heights Road/El Camino Real	9.9	10.1	6.2
El Camino Real/SR-56 EB On Ramp	10.0	10.3	6.3
Carmel Creek Road/Del Mar Trail	9.3	9.3	5.6
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No
Existing Plus Project (Phases 1 and 2)			
Del Mar Heights Road/I-5 NB Ramps	10.7	10.7	6.6
Del Mar Heights Road/High Bluff Drive	10.4	10.6	6.5
Del Mar Heights Road/El Camino Real	10.0	10.3	6.3
El Camino Real/SR-56 EB On Ramp	10.0	10.3	6.3
Carmel Creek Road/Del Mar Trail	9.3	9.3	5.6
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No
Existing Plus Project (Buildout)			
Del Mar Heights Road/I-5 NB Ramps	10.7	10.8	6.7
Del Mar Heights Road/High Bluff Drive	10.4	10.8	6.7
Del Mar Heights Road/El Camino Real	10.0	10.4	6.4
El Camino Real/SR-56 EB On Ramp	10.0	10.3	6.3
Carmel Creek Road/Del Mar Trail	9.3	9.3	5.6
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No

Table 16b CO "HOT SPOTS" MODELING RESULTS – NEAR-TERM WITH PROJECT AND LONG-TERM CUMULATIVE (YEAR 2030) CONDITIONS			
Intersection	**Maximum 1-hour CO Concentration plus Background (ppm)**		**Maximum 8-hour CO Concentration plus Background (ppm)**
	am	**pm**	
Near-term With Project (Phase 1)			
Del Mar Heights Road/I-5 NB Ramps	10.7	10.7	6.6
Del Mar Heights Road/High Bluff Drive	10.4	10.6	6.5
Del Mar Heights Road/El Camino Real	10.0	10.2	6.3
El Camino Real/SR-56 EB On Ramp	10.4	10.6	6.5
Carmel Creek Road/Del Mar Trail	9.3	9.3	5.6
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No
Near-term With Project (Phases 1 and 2)			
Del Mar Heights Road/I-5 NB Ramps	10.8	10.8	6.7
Del Mar Heights Road/High Bluff Drive	10.5	10.8	6.6
Del Mar Heights Road/El Camino Real	10.0	10.4	6.4
El Camino Real/SR-56 EB On Ramp	10.4	10.6	6.5
Carmel Creek Road/Del Mar Trail	9.3	9.4	5.7
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No
Near-term With Project Buildout			
Del Mar Heights Road/I-5 NB Ramps	10.8	10.9	6.7
Del Mar Heights Road/High Bluff Drive	10.5	10.5	6.5
Del Mar Heights Road/El Camino Real	10.0	10.6	6.5
El Camino Real/SR-56 EB On Ramp	10.4	10.6	6.5
Carmel Creek Road/Del Mar Trail	9.3	9.4	5.7
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No
Long-term Cumulative (Year 2030) With Project			
Del Mar Heights Road/I-5 NB Ramps	9.9	9.9	6.0
Del Mar Heights Road/High Bluff Drive	9.7	9.8	6.0
Del Mar Heights Road/El Camino Real	9.4	9.7	5.9
El Camino Real/SR-56 EB On Ramp	9.6	9.9	6.0
Carmel Creek Road/Del Mar Trail	9.0	9.0	5.4
CAAQS for CO	20.0	20.0	9.0
Exceed CAAQS Standard?	No	No	No

4.2.4 Operational Toxic Air Contaminants Impacts

Mobile sources of TACs could include proposed land uses that involve the long-term use of heavy-duty diesel trucks. Implementation of the Proposed Project would include development of commercial land uses, which may include facilities that require the long-term use of heavy duty diesel trucks (e.g., loading docks). The operation of such a source could result in the exposure of sensitive receptors, especially those within close proximity, to toxic air emissions that exceed the significance threshold.

Sources of TAC emissions include diesel-fueled engine and possible food-service facility operations. Delivery truck travel, truck idling, and operation of the emergency back-up power generator are emission sources of particulate matter from diesel-fueled engines. Trucks entering and leaving the Proposed Project would include deliveries associated with the retail stores and possible food service establishments. Trucks idling would occur in the shipping and receiving delivery dock areas. Trucks would be limited to an idle time not to exceed 5 minutes for entering or exiting the truck delivery well, in accordance with California state law. The loading delivery docks are the only locations where routine truck idling associated with operation of the project would be expected.

It is unknown at the time of writing, the types of tenants that would occupy retail space at the project site. It is possible that restaurants serving the residential uses could be included as tenants. Restaurants emit minor amount of TACs from the cooking of animal fats and oils. TAC emissions would be controlled through an exhaust hood to a roof-top vent. It is possible that operation of the restaurant would require use of trucks equipped with transportation refrigeration storage units (TRUs) to deliver cold-stored food items. Trucks equipped with TRUs typically result in higher TAC emissions, because they are equipped with diesel generator sets to keep perishable food cold, in addition to diesel engine exhaust from the truck. However, it is not anticipated that the retail establishments would experience high truck volumes (i.e., warehouses with distribution centers that have greater than 100 commercial trucks per day or 40 TRU-equipped trucks per day as defined by CARB as the screening level) delivering materials on a frequent basis.

Therefore, onsite or offsite sensitive receptors would not be exposed to substantial TAC concentrations from these sources.

4.2.5 Operational Odor Impacts

Land uses and industrial operations that are associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The Project site would be developed with commercial and residential land uses, and not land uses that are typically associated with odor complaints. On-site trash receptacles would have the potential to create adverse odors. As trash receptacles would be located and maintained in a manner that promotes odor control, such as keeping the receptacles closed and secured, and scheduling the timely garbage collections before the receptacles reaches unsanitary conditions, no adverse odor impacts are anticipated from the proposed commercial land uses. Therefore, Project operations would result in a less-than significant odor impact.

4.3 PROJECT GREENHOUSE GAS EMISSIONS

4.3.1 Construction Greenhouse Gas Emissions

GHG emissions would be associated with the construction phase of the Project through use of heavy equipment and vehicle trips. Emissions of GHGs would be temporary. Emissions of CO_2 during construction of the Proposed Project were calculated using the URBEMIS 2007 computer program. The URBEMIS model does not provide estimates of emissions of other GHGs from construction (such as N_2O and CH_4); however, these emissions would be minor in comparison with emissions of CO_2. URBEMIS 2007 output are contained in Attachment A.

The Project applicant has developed a construction schedule that provides the estimated timeline construction stages for all three Phases of the Proposed Project. Three different construction phasing scenarios were analyzed. Scenario 1 assumes that Phase 1, Phase 2, and Phase 3 would be constructed in a sequential order and it would take approximately 28 months for Phase 1, 22 months for Phase 2, and 31 months for Phase 3 completion. Scenario 2 assumes that Phase 1 and Phase 2 would occur simultaneously, and Phase 3 would occur after the completion of Phases 1 and 2. Phases 1 and 2 would be completed in 28 months, and Phase 3 in 31 months. Scenario 3 assumes that all three Phases would occur simultaneously and would be completed in 40 months. The phasing schedule is an estimate only subject to change based upon market conditions.

Tables 17 through 19 present a summary of total construction GHG emissions for each of the three analyzed construction phasing scenarios per calendar year of Project construction. GHG emission estimates were prepared to evaluate the total annual emissions per Phase based on the Project construction schedule for each calendar year of Project construction.

Table 17
CONSTRUCTION SCENARIO 1 - TOTAL CONSTRUCTION GHG EMISSIONS

Construction Year	Phase 1	Phase 2	Phase 3
Year 1 Construction Totals	83.45	--	--
Year 2 Construction Totals	1,198.58	--	--
Year 3 Construction Totals	1,069.97	--	--
Year 4 Construction Totals	17.05	944.05	--
Year 5 Construction Totals	--	335.47	274.56
Year 6 Construction Totals	--	--	515.06
Year 7 Construction Totals	--	--	917.44
Year 8 Construction Totals	--	--	407.74
TOTAL per Phase (tons)	**2,369.05**	**1,279.52**	**2,114.80**
TOTAL per Phase (metric tons)	**2,149.16**	**1,160.76**	**1,918.51**
TOTAL for entire Construction (metric tons)			**5,228.43**

Table 18 CONSTRUCTION SCENARIO 2 - TOTAL ANNUAL CONSTRUCTION GHG EMISSIONS		
Construction Year	**Phases 1 and 2**	**Phase 3**
Year 1 Construction Totals	72.35	--
Year 2 Construction Totals	1,788.07	--
Year 3 Construction Totals	1,718.29	--
Year 4 Construction Totals	29.22	--
Year 5 Construction Totals	--	274.56
Year 6 Construction Totals	--	515.06
Year 7 Construction Totals	--	917.44
Year 8 Construction Totals	--	407.74
TOTAL per Phase (tons)	**3,607.93**	**2,114.80**
TOTAL per Phase (metric tons)	**3,273.06**	**1,918.51**
TOTAL for entire Construction (metric tons)		**5,191.57**

Table 19 CONSTRUCTION SCENARIO 3 - TOTAL ANNUAL CONSTRUCTION GHG EMISSIONS	
Construction Year	**Phases 1, 2, and 3**
Year 1 Construction Totals	100.74
Year 2 Construction Totals	3,215.27
Year 3 Construction Totals	2,480.21
Year 4 Construction Totals	2,200.97
TOTAL entire Construction (tons)	**7,997.19**
TOTAL for entire Construction (metric tons)	**7,254.92**

Construction of the Proposed Project would emit approximately 5,228 MT per year of GHG emissions under construction Scenario 1, approximately 5,192 MT for construction Scenario 2, and approximately 7,255 MT for construction Scenario 3. For the construction emissions, the interim City guidance recommends that the emissions be amortized over 30 years and added to operational emissions. Amortized over 30 years, the proposed construction activities for construction Scenarios 1, 2, and 3 would contribute a total of approximately 174 MT, approximately 173 MT, and approximately 242 MT per year, respectively. The total with operational emissions is presented below in section 4.3.3.

4.3.2 Operational Greenhouse Gas Emissions

Operation of the Proposed Project would result in GHG emissions from vehicular traffic generated by residents and patrons, area sources (natural gas appliances, hearth combustion, and landscape maintenance), electrical generation (based on 2005 Title 24 energy code), solid waste generation, and water supply. Emissions associated with vehicular traffic, electrical generation, and water supply would be reduced by implementing GHG reduction measures, as indicated in Section 5.0 below.

Energy Use

Emissions associated with energy use would arise from the combustion of fossil fuels to provide energy for the Proposed Project. The Proposed Project is assumed to use purchased electricity for cooling, appliances and plug-loads, and natural gas for cooking and water heating. Emissions of GHGs from the proposed One Paseo development were projected based on estimated annual energy use of 13.55 kilowatt hours (kWh) per sf for commercial and 5,627 kWh per du for residential units (SCAQMD 1993). Emissions were estimated based on emission factors from the California Climate Action Registry General Reporting Protocol (Protocol; CCAR 2009), which assumes that energy use (electricity) would have emissions of 804.54 lbs/megawatt hours (MWh) of CO_2, 0.0067 lbs/MWh of CH_4, and 0.0037 lbs/MWh of N_2O. As shown in Table 20, the resultant GHG emissions would be approximately 5,576 metric ton per year of CO_2e emissions from electricity usage associated with the Proposed Project.

Emissions associated with natural gas usage were calculated based on the SCAQMD's estimated natural gas usage of 2.9 cubic feet of natural gas per square foot per month for commercial, 2.0 cubic feet of natural gas per square foot (cf/sf) per month for retail, and 4,012 cf per dwelling unit (du) for residential units (SCAQMD 1993). The Protocol assumes that natural gas combustion would have emissions of 53.05 kg/MMBTU of CO_2, 0.0059 kg/MMBTU of CH_4, and 0.0001 kg/million British thermal units (MMBTU) of N_2O. As shown in Table 20, the resultant GHG emissions would be approximately 2,887 metric tons per year of CO_2e emissions from natural gas usage associated with the Proposed Project.

Water Consumption

Water use and energy use are often closely linked. The provision of potable water to commercial and residential consumers requires large amounts of energy associated with five stages: (1) source and conveyance, (2) treatment, (3) distribution, (4) end use and (5) wastewater treatment. According to the *Water Supply Assessment Report for the San Diego Corporate Center* (City of San Diego 2011b), the potable water demand for the Proposed Project will be approximately 0.64 acre-feet[2] (208,138 gallons) per day. Based on this, it is anticipated that the Proposed Project would require approximately 233 acre-feet (75,970,370 gallons) per year.

The California Energy Commission (2005) estimates that in southern California, water usage will have an embodied energy of 12,700 kWh per million gallons. CO_2 emissions were calculated on the maximum basis of an additional 75.97 million gallons annually times 12,700 kWh per million gallons. Thus, the Proposed Project would indirectly produce a net increase of approximately 964.8 megawatt hours (MWh) of electricity requirements for water supply and distribution. Emissions of GHGs were calculated based on the California Climate Action Registry General Reporting Protocol (CCAR 2009), which assumes that energy use (electricity) would have emissions of 804.54 lbs/MWh of CO_2, 0.0067 lbs/MWh of CH_4, and 0.0037 lbs/MWh of N_2O. As shown in Table 20, the resultant GHG emissions would be approximately 353 metric tons per year of CO_2e emissions from water consumption associated with the Proposed Project.

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[2] One acre foot of water is 325,851 gallons (enough water to cover a one-acre area one foot deep in water).

Solid Waste Generation

The Proposed Project would also generate solid waste during the operation of the Project. The solid waste emissions in some disposal methods are released slowly over a period of years. Different types of organic matter have different methane generation potentials based on carbon content of the wastes. Waste generated is generally the gross amount of waste produced by the Proposed Project. Solid waste disposed is the net amount of waste following the effects of any diversion efforts (e.g., recycling or reuse), and must be the quantity used for GHG calculations.

Solid waste generation rates were estimated from the CIWMB *Solid Waste Characterization: Guidelines for Preparation of Environmental Assessment for Solid Waste Management* (CIWMB 2010). Based on data from the CIWMB, the residential/commercial mixed uses were assumed to generate 0.0108 tons/square foot/year. Waste collection trucks are accounted for in the URBEMIS 2007 model, which incorporates diesel trucks that would visit and service the Proposed Project site. As shown in Table 20, it is estimated that approximately 90 metric ton per year of GHG emissions would be generated from the waste collection activities at the Project site.

Vehicle Use

Mobile-source GHG emissions were estimated based on the projected ADTs from the TIA (Urban Systems and Associates 2012). Emissions of CO_2 and CH_4 were obtained from the EMFAC2007 model. Emissions of N_2O were estimated based on California Climate Action Registry General Reporting Protocol (CCAR 2009), which is based on current CARB vehicle emission standards. Based on the maximum of approximately 26,961 ADT projected for the Proposed Project, emissions of CO_2-equivalent vehicle GHGs were estimated at 13,894 tons per year (or 12,604 metric tons per year).

As shown in Table 20, the total estimated Project-related operational GHG emissions under BAU conditions are 22,849 metric tons of CO_2e emissions per year. As also indicated in Table 20, Project vehicular traffic is the primary source of GHG emissions.

Table 20 SUMMARY OF TOTAL ESTIMATED OPERATIONAL GHG EMISSIONS UNDER BAU CONDITIONS				
Emission Source	**Annual Net Emissions (metric tons/year)**			
	CO_2	**CH_4**	**N_2O**	**CO_2 Equivalents**
Electricity Use Emissions	5,567	0.0475	0.0263	5,576
Natural Gas Use Emissions	2,878	0.3203	0.0054	2,887
Water Consumption Emissions	352	0.0029	0.0016	353
Solid Waste Emissions	90	0.0003	0.0002	90
Vehicular Use Emissions	12,604	3.5657	3.6674	13,816
Global Warming Potential Factor	1	21	310	-
TOTAL CO_2 Equivalent Emissions				**22,722**

4.3.3 Total Project Greenhouse Gas Emissions

The total GHG emissions that would be generated by the Project are the sum of amortized construction GHG emissions plus the total operational emissions. As discussed above, construction GHG emissions were calculated for three construction phasing scenarios. The total Project GHG emissions accounting for each of the analyzed construction phasing scenarios are summarized in Table 21.

Table 21 TOTAL PROJECT GHG EMISSIONS (MT/year)			
Emissions Source	**Construction Scenario 1**	**Construction Scenario 2**	**Construction Scenario 3**
Amortized Construction	174	173	242
Operations	22.722	22.722	22.722
TOTAL	**22,896**	**22,895**	**22,964**

As stated in Section 3.0, a reduction of 28.3 percent below BAU levels is consistent with the goals of AB 32. Specific Project design features and GHG reduction measures have been incorporated into the Project design. These Project design features and GHG reduction measures, which will reduce emissions of GHG by implementing energy efficiency measures, water conservation measures, and programs to reduce VMT, are discussed in Section 5.0.

5.0 SUMMARY OF PROJECT DESIGN FEATURES

The following GHG reduction measures and Project design features would reduce GHG impacts.

5.1 GREENHOUSE GAS EMISSIONS

Project design features and potential GHG reduction measures proposed by the Project applicant are listed in Sections 5.1.1 and 5.1.2 below. As shown below, a wide range of Project design features and GHG reduction measures would be incorporated into the Project, ranging from the water use efficiency to building energy efficiency and landscaping, and solid waste diversion.

As discussed in Section 4.0, an emission reduction target of 28.3 percent below BAU levels is considered to demonstrate that a project would be consistent with the goals of AB 32.

5.1.1 Summary of Existing State Measures – Greenhouse Gas Emissions

As shown in Table 18, and as discussed in the CARB's *Staff Report, California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit* (CARB 2007b), vehicular emissions are the greatest contributor to GHG emissions. Because the applicant does not have direct control over the types of vehicles or emission/fuel standards, the effect of California programs to reduce GHG emissions from vehicles was evaluated. In addition, the difference between cumulative trips and driveway trips was considered in the analysis to account for the placement of mixed office and retail in the vicinity of residential and commercial uses, which would allow for internal trips.

Based on the SDCGHGI, the percent reductions in GHG emissions anticipated through implementation of the Federal CAFE standards, LCFS, and Pavley fuel efficiency standard (analogous to the Federal CAFE standard), as well as the effect of light/heavy vehicle efficiency/hybridization programs can be estimated. Based on that study, emissions from vehicles would be reduced by 14.06 percent through implementation of the Federal CAFE standard/Pavley standard, 6.6 percent through LCFS, and 0.62 percent by the light/heavy vehicle aerodynamic efficiency/hybridization standard. Emissions from vehicles would therefore be reduced by as much as 33 percent from state and federal programs by the year 2020.

In addition to the Pavley fuel efficiency standards and the LCFS, included in the CARB's Scoping Plan (CARB 2008) are strategies to reduce emissions by increasing efficiency, optimizing aerodynamics, and converting combustion-only vehicles to hybrids. According to the SDCGHGI, although these on-road emissions reduction measures are intended for implementation at the state level, several on-road transportation strategies were scaled down to San Diego County using data related to CO_2e emissions, vehicle population, and vehicle type.

According to the SDCGHGI, implementation of the 20% Renewable Portfolio Standard (RPS) goal by 2010 would reduce GHG emissions by a further 14% from 2006 levels (e.g., URBEMIS 2007 model used pre-2007 data); the inventory estimated that San Diego Gas and Electric was providing 11.9% of its electricity from renewable resources in 2010. To account for the implementation of the 20% RPS, a 8.1% reduction in GHG emissions was assumed. While implementation of EO S-21-09 (i.e., the 33% RPS) will result in additional GHG reductions of 13% below 2010 levels, additional credit was taken for these reductions because the PUC is currently developing the procurement plans for the 33% RPS implementation starting in December 10, 2011 (California PUC 2011). Table 22 presents the Proposed Project's GHG emissions reduction due to existing state measures.

Table 22
EXISTING STATE MEASURES FOR GHG EMISSIONS REDUCTIONS
(Metric Tons Per Year)

Measure	Sector	Percent Reduction from BAU[1] (Sector Specific)	BAU CO_2e/Sector	CO_2e Reduced
Renewable Portfolio Standard (20% by 2020)	Energy Use	8.10%	5,576	451.66
Electricity Energy Efficiency (AB32)	Energy Use	11.67%	5,576	650.72
Renewable Portfolio Standard (33% by 2020)	Energy Use	13.00%	5,576	724.88
2008 Title 24 Energy Code Requirements	Natural Gas/Energy Use	15.00%	7,863	1,179.45
Assembly Bill 1493: Pavley I & II	Transportation	14.06%	13,816	1,942.53
Executive Order S-1-07 (Low Carbon Fuel Standard)	Transportation	6.6%	13,816	911.86
Medium/Heavy Duty Vehicles (Aerodynamic Efficiency and Vehicle Hybridization)	Transportation	0.62%	13,816	85.66
Subtotal – Metric Tons of CO_2e Reduced				**5,946.76**

1. Percent Reduction from BAU calculated based on the CARB Scoping Plan reductions for sector-specific activity (e.g., LCFS Reductions Counted Towards 2020 Target is 15 MMT CO_2e and Projected 2020 BAU Transportation emissions are 225.4 MMT CO_2e, therefore 15 MMT CO_2e ÷ 225.4 MMT CO_2e = 6.6%). *CARB Scoping Plan, December 2008*
2. Emissions available from Table 10, by sector: Total Greenhouse Gas Emissions (Annual) BAU without Consideration of Project Design Features and/or State and Federal Mandates.

3. CO_2e Reduced is quantified by multiplying the Percent Reduction from BAU (Sector Specific) by the BAU CO_2e/Sector value.

5.1.2 Summary of Project Design Features – Greenhouse Gas Emissions

The Proposed Project would incorporate design features intended to reduce estimated GHG emissions generated by a mixed-used development. These Project design features and the respective GHG emissions reductions are discussed below and summarized in Table 23. As identified in the table, proposed design features would result in GHG emissions reductions of approximately 2,556 metric tons per year. The assumptions for the Project design features were obtained from CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*, (CAPCOA 2010). The Project design features correspond to the CAPCOA measure numbers listed in the referenced CAPCOA report.

Building Energy Use. The Project would incorporate energy efficiency features that would exceed 2008 California Title 24 Energy Efficiency Standards by 20 percent. Pursuant to Measure BE-1 in the 2010 CAPCOA report, GHG are emitted as a result of activities in residential and commercial buildings when electricity and natural gas are used as energy sources. New buildings must be designed to meet the building efficiency energy standards of Title 24. Part 6 of Title 24 regulates energy uses, including space heating and cooling, hot water heating, and ventilation. By committing to a percent improvement over Title 24 requirements, a project reduces its energy use and resulting GHG emissions. As shown in Table 20, a 20-percent commitment to exceed Title 24 standards would result in a 23 percent reduction from BAU (sector specific) and an annual reduction in GHG emissions by 1,572.6 metric tons CO_2e.

Water Use. Water use indirectly contributes to generation of GHG emissions from the production of the electricity that is used to pump, treat, and distribute water. Pursuant to Measure WUW-1 in the 2010 CAPCOA report, installation of low-flow or high-efficiency water fixtures in buildings reduces water demand, energy demand, and associated indirect GHG emissions. The Project would implement water conservation features to increase water use efficiency and decrease water use demand, including EPA Certified WaterSense® labeled or equivalent faucets, high-efficiency toilets, and water-conserving showerheads. As shown in Table 23, implementation of these water conservation features would result in a 30-percent reduction from BAU (sector specific) and an annual reduction in GHG emissions by 106 metric tons CO_2e.

Solid Waste Generation. The transport of solid waste from the site of generation to the landfill produces GHG emissions from the combustion of the fuel used to power the transport vehicle. As identified in Measure SW-1 in the 2010 CAPCOA report, implementation of waste management practices which reduce the amount of waste sent to landfills will reduce GHG emissions. Strategies to reduce solid waste include increasing recycling, reuse, and composting, and encouraging lifestyle choices and office practices which reduce waste generation.

Measure SW-2 in the 2010 CAPCOA report addresses recycling of construction materials. Recycling construction materials can contribute to GHG reductions. Recycling construction materials avoids sending construction waste to landfills. Wood-based materials decompose at landfills and contribute to methane emissions. Additionally, using local recycled construction materials reduces the emissions associated with transport of new construction materials that are typically manufactured further away from the Project site.

The Project would provide areas for recyclable materials collection, would recycle and/or salvage 50 percent of nonhazardous construction waste, and use building products that have at least a 10-percent recycle content. As shown in Table 23, implementation of waste management practices would result in a 5-percent reduction from BAU (sector specific) and an annual reduction in GHG emissions by 4.5 metric tons CO_2e.

Mixed-use Developments. As stated in Measure LU-3 in the 2010 CAPCOA report, placing different types of land uses near one another can decrease VMT since trips between land use types are shorter and may be accommodated by non-automobile modes of transport. A reduction in VMT would result in a reduction in GHG emissions. The Project would provide an integrated mix of land uses within the Project site, including residential, retail, and office uses and therefore, a reduction of VMT is expected to occur. Additionally, the project would include features to promote the use of alternative transportation modes, such as bicycle routes and paseos that would connect to existing off-site bicycle routes and sidewalks, a shuttle stop to encourage ridesharing, and a future transit stop that would accommodate a future planned rapid bus route in the project area (Route 473 as identified in the 2050 RTP). As shown in Table 23, the Proposed Project would result in a 6-percent reduction from BAU (sector specific) and an annual reduction in GHG emissions by 828.96 MT CO_2e.

Table 23
PROJECT DESIGN FEATURES FOR GHG EMISSIONS REDUCTIONS
(Metric Tons Per Year)

Category - Feature	Sector	2010 CAPCOA Report Measure	Percent Reduction from BAU (Sector Specific)	BAU CO_2e/ Sector	CO_2e Reduced
Building Energy Use – Energy efficient features	Natural Gas/Energy Use	BE-1	20%	7,863	1,572.60
Water Use – Water conservation features	Water Use Related Emissions	WUW-1	30%	480	105.90
Solid Waste Generation – Waste management practices	Municipal Solid Waste Generation	SW-1 and SW-2	5%	90	4.50
Mixed-use Developments – Reduced VMT	Transportation	LUT-3	6%	13,816	828.96
Subtotal – metric tons of CO_2e Reduced					**2,511.96**

Percent Reduction from BAU calculated based on the data from the CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures.*

Summary of Greenhouse Gas Emissions Reduction

Accounting for the state reduction measures and Proposed Project design features, a total reduction of approximately 8,459 MT per year of CO_2e emissions would occur. As shown in Table 24, this equates to a 36.9-percent reduction in emissions below BAU levels for construction Scenarios 1 and 2, and 36.8 percent for construction Scenario 3.

Table 24
SUMMARY OF ESTIMATED TOTAL PROJECT GREENHOUSE GAS EMISSIONS WITH GHG REDUCTIONS

	Construction Scenario 1	Construction Scenario 2	Construction Scenario 3
BAU Total Project Emissions	22,896	22,895	22,964
State Measures Emissions Reductions	-5,947	-5,947	-5,947
Project Design Features Emissions Reductions	-2,55	-2,5110	-2,511
Total Reduced Emissions	14,526	14,437	14,506
Percent Reduction	36.9	36.9	36.8

Emissions of GHGs were quantified for both construction and operation of the Proposed Project. Operational emissions were calculated for existing conditions, and for both BAU conditions and conditions with considering GHG emission reduction strategies. Through consideration of pass-by trips, the mobile source emission regulatory framework, and RPS, emissions will be reduced for the Proposed Project to a level that is consistent with the goals of AB 32 (by at least 28.3 percent). Therefore, no significant GHG emissions impacts would occur as a result of the Project.

6.0 CUMULATIVE IMPACTS

In analyzing cumulative impacts from a Proposed Project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as "non-attainment" for the State AAQS. A project that has a significant impact on air quality with regard to emissions of PM_{10}, NO_x and/or ROCs, as determined by the screening criteria outlined above, would have a significant cumulative effect. In the event direct impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of screening levels identified above, and the project's contribution accounts for more than an insignificant proportion of the cumulative total emissions.

With regard to past and present development, the background ambient air quality, as measured at the monitoring stations maintained and operated by the SDAPCD, measures the concentrations of pollutants from existing sources. Past and present development impacts are therefore included in the background ambient air quality data.

With regard to cumulative impacts associated with ozone precursors, in general, provided a project is consistent with the governing General Plans, it has been accounted for in the RAQS, and would not cause a cumulatively significant impact on the ambient air quality for ozone.

The Project site is located in the SDAB, and as such, is located in an area where a regional air quality plan is being implemented. The Project site is designated Employment Center in the City of San Diego General Plan. The Proposed Project would alter the land use designations and would add mixed-use development encompassing a maximum of 1,857,440 gross sf consisting of 270,000 gross sf of commercial retail (all 270,000 sf comprises the gla), 535,600 gross sf of corporate office (515,000 sf of gla), approximately 21,840 gross sf of professional office (21,000 sf of gla), 100,000 gross sf consisting of a 150-room hotel, and 930,000 gross sf consisting of a maximum of 608 residential units. This change would increase the permitted number of building square footage and dwelling units from 510,000 sf under the existing General Plan to 1,857,440 gross sf of mixed use and residential development under the Proposed Project. This results in an increase of 26,961 ADT in comparison to the existing General Plan and Carmel Valley Community Plan. However, the provision of residential housing, office, professional office, and retail uses within the Project site would contribute to a greater balance of uses both on site and within the community as a whole, as it would provide additional choices for commercial and retail services, as well as provide employment opportunities in the retail and professional sectors.

SDAPCD relies to a certain degree on land use designations contained in general plan documents applicable to its jurisdiction. SDAPCD refers to the contents of approved general plans in order to forecast, inventory, and allocate regional emissions from land use and development-related sources. These emissions budgets are used in statewide air quality attainment planning efforts. As such, the Project is consistent with the regional air quality plan. Additionally, the Project involves the provision of additional employment generating uses within the North San Diego area that could reduce vehicle miles traveled in the region through the provision of employment generating uses closer to residential land uses. City approval of the proposed Community Plan Amendment to change the Project site's land use designation would eliminate the Project's potential conflicts with applicable air quality goals, objectives, and guidelines of the RAQS, and the impact is less than significant.

The TIA took into account traffic associated with future growth in the area in the near term and future evaluations. Based on the TIA, the LOS would not change at most affected intersections; thus, the cumulative traffic would not cause a CO "hot spot" to form due to cumulative traffic impacts.

As shown in the operational emissions evaluation above in Section 4.2, the emissions of PM_{10} would not exceed the daily threshold levels. Because of the regional nature of PM_{10} impacts, and because all of the past, present, and reasonably foreseeable future projects would not be undergoing construction at the same time as the Proposed Project, the PM_{10} impacts associated with operations would not be cumulatively significant.

It is difficult to estimate GHG impacts of other projects to assess the potential for cumulative impacts. Emissions for reasonably foreseeable future projects with related impacts are dependent on the individual projects and project design, and cannot be determined at this time. As discussed in Section 5.1.2, the Project applicant would be committed to incorporate feasible measures in the Scoping Plan that would be consistent with the goals of AB 32. Therefore, the Proposed Project would not result in a cumulatively considerable global climate change impact

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 CRITERIA POLLUTANTS

In summary, the Proposed Project would result in emissions of criteria pollutants for both the construction and operational phases of the Project. The air quality impact analysis evaluated the potential for adverse impacts to the ambient air quality due to construction and operational emissions. Construction emissions would include emissions associated with fugitive dust, heavy construction equipment and construction worker commuting to and from the site. The emissions associated with construction would be below the significance thresholds for all criteria pollutants during construction. Construction air quality impacts would be temporary and less than significant.

Operational emissions would include those associated with area sources such as energy use, and with vehicles accessing the Project. Operational emissions would be below the daily threshold for all pollutants. As such, the operational emissions would result in a less than significant impact.

7.2 GREENHOUSE GASES

The main source of operational GHG emissions associated with the Proposed Project would be vehicular emissions. As discussed in Section 2.5.2, both the state of California and the federal government have adopted GHG emission reduction measures that are designed to reduce the amount of GHGs emitted from vehicles. The U.S. Congress has recently adopted legislation to require CAFE standards to reach 35 mpg by the year 2020; the default EMFAC2007 average miles per gallon for vehicles traveling at 45 miles per hour is 27 miles per gallon; other speeds are less efficient and miles per gallon decreases. Thus the new CAFE standards would lead to approximately 23 percent greater fuel efficiency, which would lower GHG emissions. These measures would contribute to reductions in emissions of GHG from vehicle travel. Also, the Proposed Project incorporates a number of design features, which have the effect of reducing energy consumption through energy and water efficient design, it would meet the projected growth and increased energy demand with greater energy conservation. Through consideration of pass-by trips, the mobile source emission regulatory framework, and RPS, emissions will be reduced for the Proposed Project to a level that is consistent with the goals of

AB 32 (by at least 28.3 percent). As a result, no significant GHG emissions impacts would occur as a result of the Project..

8.0 REFERENCES

American Petroleum Institute (API). 2004. *Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil and Natural Gas Industry*. February.

Association of Environmental Professionals. 2007. *Recommendations by the Association of Environmental Professionals (AEP) on How to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents*. June.

California Air Resources Board (CARB). 2010. *Top 4 Measurements and Days Above the Standard* Available: <http:// http://www.arb.ca.gov/adam/welcome.html>. Accessed May 2010.

2009a. C*ARB Fact Sheet: Air Pollution and Health*. December 2. http://www.arb.ca.gov/research/health/fs/fs1/fs1.htm

2009b. Almanac Emissions Projection Data (published in 2009). California Air Resources Board. http://www.arb.ca.gov/app/emsinv/. Accessed May 2010.

2009c. California State Implementation Plans. California Air Resources Board. http://www.arb.ca.gov/planning/sip/sip.htm. Accessed May 2010.

2008a. *Ambient Air Quality Standards*. website: http://www.arb.ca.gov/aqs/aaqs2.pdf, November.

2008b. *Area Designations and Maps – 2008*. November.

2008c. *Climate Change Scoping Plan*. October.

2008d. *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under California Environmental Quality Act.* October 24. http://www.arb.ca.gov/cc/localgov/ceqa/ceqa.htm. Accessed May 2010.

2007a. *Staff Report: California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit*. November 16.

2007b. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

2007c. Regulation for In-Use Off-Road Diesel-Fueled Fleets. California Air Resources Board. December 8, 2007.

California Air Resources Board (CARB) (cont.)

2007d. Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, Final Regulation Order. California Air Resources Board. September 12, 2007.

2005. California Diesel Fuel Regulations. California Air Resources Board. October 27, 2005.

2000a. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. California Air Resources Board. October 2000.

2000b. Proposed Regulation for In-Use On-Road Diesel Vehicles, Staff Report: Initial Statement of Reasons for Proposed Rulemaking. California Air Resources Board. October 2000.

California Climate Action Registry General Reporting Protocol. 2009. Version 3.1. January.

California Department of Transportation. 1998. Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol.

California Environmental Protection Agency (CalEPA). 2006. *Global Climate Change Background.* September.

California Energy Commission. 2007. *The Role of Land Use in Meeting California's Energy and Climate Change Goals.* CEC-600-2007-008-SD. June.

2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004.* December.

California Public Utility Commission (PUC). 2011. 33% Renewables Portfolio Standard. Available: http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/33implementation.htm

City of San Diego, Development Services Department. 2011a. *California Environmental Quality Act Significance Determination Thresholds*. January.

2011b. Water Supply Assessment and Verification Report – San Diego Corporate Center. August.

Dziegielewski, Benedykt; Kiefer, Jack C.; Opitz, Eva M.; Porter Gregory A.; Lantz, Glen L. 2000. *Commercial and Institutional End Uses of Water*. American Water Works Association Research Foundation.

Earth Systems Research Laboratory (ESRL) 2010. *Trends in Atmospheric Carbon Dioxide - Mauna Loa Observatory*. Global Monitoring Division. National Oceanic & Atmospheric Administration. http://www.esrl.noaa.gov/gmd/ccgg/trends/

Geotechnical Exploration Inc. 2008. Report of Geotechnical Investigation and Existing Fill Evaluation. San Diego Corporate Center Development Site. Prepared for Kilroy Realty Corporation. March.

Office of Planning and Research (OPR). 2008. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review – Technical Advisory*. Available: < http://opr.ca.gov/index.php?a=ceqa/index.html>.

Rimpo & Associates 2007 *URBEMIS 2007 Model*, Version 9.2.4.

San Diego County Air Pollution Control District (SDCAPCD). 2009. *Air Quality Planning*. Available:< http://www. sdapcd.org/planning/plan.html>. Accessed in May 2010.

San Diego County Air Pollution Control District (SCAPCD). 2008a. *Five Year Air Quality Summary*. http://www.sdapcd.org/air/reports/smog.pdf Accessed in May 2010.

San Diego County Air Pollution Control District (SCAPCD). 2008b. *Fact Sheet: Attainment Status*. http://www.sdapcd.org/info/facts/attain.pdf. July.

San Diego County Air Pollution Control District (SDCAPCD). 2007. *Eight-Hour Ozone Attainment Plan for San Diego County*. May.

San Diego County Air Pollution Control District (SDCAPCD). 2004. *2004 Triennial Revision of the Regional Air Quality Strategy for San Diego County*. July 28.

San Diego County Air Pollution Control District (SDCAPCD), 2002. Ozone Redesignation Request and Maintenance Plan for San Diego County. December, 2002.

San Diego Association of Governments. 2008. *2030 Regional Growth Forecast Update: Process and Model Documentation*. April. http://www.sandag.org/uploads/publicationid/publicationid_833_3750.pdf.

South Coast Air Quality Management District (SCAQMD). 2009. *Air Quality Significance Thresholds*. Revised March 2009.
1993. *CEQA Air Quality Handbook*. April.

United Nations Framework Convention on Climate Change. 2006. *Greenhouse Gas Emissions Data, Predefined Queries, Annex I Parties – GHG total without LULUCF (land-use, land-use change and forestry).* http://unfccc.int/ghg_emissions_data/predefined_queries/items/3841.php.

United States Environmental Protection Agency (EPA). 2010a. Fact Sheet: Proposal to revise the National Ambient Air Quality Standards for Ozone. January 19. http://www.epa.gov/air/oaqps/eog/course422/ap7a.html#table

2010b. Fact Sheet: Final Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide. January 22. http://www.epa.gov/air/oaqps/eog/course422/ap7a.html#table

2010c. Monitor Values Report. <www.epa.gov/air/data/monvals.html> Accessed May 2010.

2006. *The U.S. Inventory of Greenhouse Gas Emissions and Sinks: Fast Facts.* www.epa.gov/climatechange/emissions/downloads06/06FastFacts.pdf.

2007. *The Effects of Air Pollutants – Health Effects* http://www.epa.gov/air/oaqps/eog/course422/ap7a.html#table

2004. Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel. Environmental Protection Agency. Federal Register, Volume 69, Number 124. June 29, 2004.

University of California Davis (UCD). 1997. *Transportation Project-Level Carbon Monoxide Protocol* (*CO Protocol*). Institute of Transportation Studies. 1997.

University of San Diego School of Law Energy Policy Initiative Center (EPIC) Anders, S., D. De Haan, N. Silva-Send, S. Tanaka, and L. Tyner. *San Diego County Greenhouse Gas Inventory: An Inventory of Regional Emissions and Strategies to Achieve AB32 Targets*. September 2008. Available:<http://www.sandiego.edu/epic/ghginventory>.Accessed: May 2010.

Urban Systems Associates Inc. 2012. *Traffic Impact Analysis for One Paseo*. Prepared for the City of San Diego and Kilroy Realty. March 23.

Wilkinson, R., and Wolfe, G. 2005. *Energy Flow in the Water Cycle: A New Spaghetti Chart*. Presentation before the California Energy Commission, Integrated Energy Policy Report. Water- Energy Relationship Workshop. January 24.

Western Regional Climate Center. 2010. *Western U.S. Climate Historical Summaries*. http://www.wrcc.dri.edu/Climsum.html. Accessed May 2010.

Appendix A

EMISSION CALCULATIONS

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1Construction.urb924

Project Name: One Paseo Scenario 1 Phase 1 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
2012 TOTALS (lbs/day mitigated)	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
2013 TOTALS (lbs/day unmitigated)	9.50	99.52	59.18	0.12	303.00	4.54	307.54	63.33	4.18	67.51	16,528.99
2013 TOTALS (lbs/day mitigated)	9.50	86.16	59.18	0.12	21.54	4.02	25.57	4.55	3.70	8.26	16,528.99
2014 TOTALS (lbs/day unmitigated)	128.92	30.48	56.90	0.05	0.26	2.10	2.36	0.09	1.92	2.01	8,319.63
2014 TOTALS (lbs/day mitigated)	79.77	20.40	56.90	0.05	0.26	1.64	1.90	0.09	1.50	1.59	8,319.63
2015 TOTALS (lbs/day unmitigated)	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
2015 TOTALS (lbs/day mitigated)	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
Mass Grading 12/17/2012-05/07/2013	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	5.16	74.51	25.79	0.12	0.45	2.79	3.24	0.15	2.57	2.72	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 1/1/2013-3/26/2013 Active Days: 61	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading 12/17/2012-05/07/2013	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	9.50	**99.52**	44.97	**0.12**	**303.00**	**4.54**	**307.54**	**63.33**	**4.18**	**67.51**	**16,528.99**
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Mass Grading 12/17/2012-05/07/2013	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 5/8/2013-6/18/2013 Active Days: 30	4.78	33.63	21.78	0.00	30.02	2.09	32.10	6.27	1.92	8.19	3,705.23
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Fine Grading 05/08/2013-06/18/2013	2.58	20.61	11.97	0.00	30.00	0.99	30.99	6.27	0.91	7.18	2,349.58
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 6/19/2013-8/14/2013 Active Days: 41	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Time Slice 8/15/2013-12/31/2013 Active Days: 99	6.51	32.60	**59.18**	0.05	0.25	2.29	2.54	0.09	2.09	2.18	8,171.47
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Building 08/15/2013-01/07/2015	4.30	19.58	49.38	0.05	0.24	1.19	1.43	0.09	1.08	1.17	6,815.82
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.33	3.80	3.58	0.01	0.04	0.15	0.19	0.01	0.14	0.15	1,028.00
Building Worker Trips	1.10	1.87	35.59	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,166.62

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Time Slice 1/1/2014-4/25/2014 Active Days: 83	6.02	30.42	55.74	0.05	0.25	2.10	2.35	0.09	1.92	2.01	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 4/28/2014-9/29/2014 Active Days: 111	**128.92**	30.48	56.90	0.05	0.26	2.10	2.36	0.09	1.92	2.01	8,319.63
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Coating 04/28/2014-09/29/2014	122.90	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Architectural Coating	122.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68

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Time Slice 9/30/2014-12/22/2014 Active Days: 60	6.02	30.42	55.74	0.05	0.25	2.10	2.35	0.09	1.92	2.01	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 12/23/2014-12/31/2014 Active Days: 7	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 1/1/2015-1/7/2015 Active Days: 5	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
Building 08/15/2013-01/07/2015	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.27	2.94	3.08	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,028.19
Building Worker Trips	0.91	1.57	30.43	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,169.03

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

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Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3185.23

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 7.31

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

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Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
Mass Grading 12/17/2012-05/07/2013	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.69	13.17	11.51	0.00	0.00	0.80	0.80	0.00	0.74	0.74	2,247.32
Mass Grading On Road Diesel	5.16	74.51	25.79	0.12	0.45	2.79	3.24	0.15	2.57	2.72	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-3/26/2013 Active Days: 61	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading 12/17/2012-05/07/2013	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 3/27/2013-5/7/2013 Active Days: 30	9.50	86.16	44.97	**0.12**	21.54	4.02	25.57	4.55	3.70	8.26	**16,528.99**
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Mass Grading 12/17/2012-05/07/2013	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 5/8/2013-6/18/2013 Active Days: 30	4.78	20.28	21.78	0.00	2.11	1.57	3.67	0.44	1.44	1.88	3,705.23
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Fine Grading 05/08/2013-06/18/2013	2.58	12.38	11.97	0.00	2.10	0.74	2.84	0.44	0.68	1.12	2,349.58
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 6/19/2013-8/14/2013 Active Days: 41	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52

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Time Slice 8/15/2013-12/31/2013 Active Days: 99	6.51	21.91	**59.18**	0.05	0.25	1.79	2.04	0.09	1.63	1.72	8,171.47
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Building 08/15/2013-01/07/2015	4.30	14.01	49.38	0.05	0.24	0.96	1.20	0.09	0.87	0.95	6,815.82
Building Off Road Diesel	2.88	8.34	10.20	0.00	0.00	0.70	0.70	0.00	0.64	0.64	1,621.20
Building Vendor Trips	0.33	3.80	3.58	0.01	0.04	0.15	0.19	0.01	0.14	0.15	1,028.00
Building Worker Trips	1.10	1.87	35.59	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,166.62
Time Slice 1/1/2014-4/25/2014 Active Days: 83	6.02	20.34	55.74	0.05	0.25	1.64	1.89	0.09	1.49	1.58	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	79.77	20.40	56.90	0.05	0.26	1.64	1.90	0.09	1.50	1.59	8,319.63
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Coating 04/28/2014-09/29/2014	73.75	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Architectural Coating	73.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Time Slice 9/30/2014-12/22/2014 Active Days: 60	6.02	20.34	55.74	0.05	0.25	1.64	1.89	0.09	1.49	1.58	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95

Time Slice 12/23/2014-12/31/2014 Active Days: 7	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 1/1/2015-1/7/2015 Active Days: 5	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42
Building 08/15/2013-01/07/2015	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.27	2.94	3.08	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,028.19
Building Worker Trips	0.91	1.57	30.43	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,169.03

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1Construction.urb924

Project Name: One Paseo Scenario 1 Phase 1 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
2012 TOTALS (lbs/day mitigated)	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
2013 TOTALS (lbs/day unmitigated)	9.50	99.52	59.18	0.12	303.00	4.54	307.54	63.33	4.18	67.51	16,528.99
2013 TOTALS (lbs/day mitigated)	9.50	86.16	59.18	0.12	21.54	4.02	25.57	4.55	3.70	8.26	16,528.99
2014 TOTALS (lbs/day unmitigated)	128.92	30.48	56.90	0.05	0.26	2.10	2.36	0.09	1.92	2.01	8,319.63
2014 TOTALS (lbs/day mitigated)	79.77	20.40	56.90	0.05	0.26	1.64	1.90	0.09	1.50	1.59	8,319.63
2015 TOTALS (lbs/day unmitigated)	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
2015 TOTALS (lbs/day mitigated)	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
Mass Grading 12/17/2012-05/07/2013	7.88	96.50	38.25	0.12	302.98	3.87	306.85	63.33	3.56	66.89	15,173.30
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	5.16	74.51	25.79	0.12	0.45	2.79	3.24	0.15	2.57	2.72	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23
Time Slice 1/1/2013-3/26/2013 Active Days: 61	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading 12/17/2012-05/07/2013	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	9.50	**99.52**	44.97	**0.12**	**303.00**	**4.54**	**307.54**	**63.33**	**4.18**	**67.51**	**16,528.99**
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Mass Grading 12/17/2012- 05/07/2013	7.29	86.50	35.16	0.12	302.98	3.44	306.43	63.33	3.17	66.50	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 5/8/2013-6/18/2013 Active Days: 30	4.78	33.63	21.78	0.00	30.02	2.09	32.10	6.27	1.92	8.19	3,705.23
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Fine Grading 05/08/2013- 06/18/2013	2.58	20.61	11.97	0.00	30.00	0.99	30.99	6.27	0.91	7.18	2,349.58
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 6/19/2013-8/14/2013 Active Days: 41	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Time Slice 8/15/2013-12/31/2013 Active Days: 99	6.51	32.60	**59.18**	0.05	0.25	2.29	2.54	0.09	2.09	2.18	8,171.47
Asphalt 03/27/2013-12/22/2014	2.20	13.03	9.81	0.00	0.01	1.10	1.11	0.00	1.01	1.01	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Building 08/15/2013-01/07/2015	4.30	19.58	49.38	0.05	0.24	1.19	1.43	0.09	1.08	1.17	6,815.82
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.33	3.80	3.58	0.01	0.04	0.15	0.19	0.01	0.14	0.15	1,028.00
Building Worker Trips	1.10	1.87	35.59	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,166.62

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Time Slice 1/1/2014-4/25/2014 Active Days: 83	6.02	30.42	55.74	0.05	0.25	2.10	2.35	0.09	1.92	2.01	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 4/28/2014-9/29/2014 Active Days: 111	**128.92**	30.48	56.90	0.05	0.26	2.10	2.36	0.09	1.92	2.01	8,319.63
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Coating 04/28/2014-09/29/2014	122.90	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Architectural Coating	122.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68

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Time Slice 9/30/2014-12/22/2014 Active Days: 60	6.02	30.42	55.74	0.05	0.25	2.10	2.35	0.09	1.92	2.01	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	12.38	9.61	0.00	0.01	1.03	1.04	0.00	0.95	0.95	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	12.21	7.96	0.00	0.00	1.02	1.02	0.00	0.94	0.94	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 12/23/2014-12/31/2014 Active Days: 7	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building 08/15/2013-01/07/2015	3.93	18.04	46.13	0.05	0.24	1.07	1.31	0.09	0.97	1.06	6,817.24
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 1/1/2015-1/7/2015 Active Days: 5	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
Building 08/15/2013-01/07/2015	3.59	16.54	43.14	0.05	0.24	0.99	1.23	0.09	0.90	0.98	6,818.42
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.27	2.94	3.08	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,028.19
Building Worker Trips	0.91	1.57	30.43	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,169.03

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

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Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3185.23

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 7.31

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

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Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
Mass Grading 12/17/2012-05/07/2013	7.88	87.73	38.25	0.12	21.53	3.60	25.13	4.55	3.31	7.86	15,173.30
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.69	13.17	11.51	0.00	0.00	0.80	0.80	0.00	0.74	0.74	2,247.32
Mass Grading On Road Diesel	5.16	74.51	25.79	0.12	0.45	2.79	3.24	0.15	2.57	2.72	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.94	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.23

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Time Slice 1/1/2013-3/26/2013 Active Days: 61	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading 12/17/2012-05/07/2013	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 3/27/2013-5/7/2013 Active Days: 30	9.50	86.16	44.97	**0.12**	21.54	4.02	25.57	4.55	3.70	8.26	**16,528.99**
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Mass Grading 12/17/2012-05/07/2013	7.29	78.27	35.16	0.12	21.53	3.20	24.73	4.55	2.94	7.49	15,173.34
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Mass Grading On Road Diesel	4.71	65.89	23.19	0.12	0.45	2.46	2.90	0.15	2.26	2.41	12,823.76
Mass Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26

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Time Slice 5/8/2013-6/18/2013 Active Days: 30	4.78	20.28	21.78	0.00	2.11	1.57	3.67	0.44	1.44	1.88	3,705.23
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Fine Grading 05/08/2013-06/18/2013	2.58	12.38	11.97	0.00	2.10	0.74	2.84	0.44	0.68	1.12	2,349.58
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	2.55	12.34	11.10	0.00	0.00	0.74	0.74	0.00	0.68	0.68	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.05	0.87	0.00	0.00	0.00	0.01	0.00	0.00	0.00	102.26
Time Slice 6/19/2013-8/14/2013 Active Days: 41	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52

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Time Slice 8/15/2013-12/31/2013 Active Days: 99	6.51	21.91	**59.18**	0.05	0.25	1.79	2.04	0.09	1.63	1.72	8,171.47
Asphalt 03/27/2013-12/22/2014	2.20	7.89	9.81	0.00	0.01	0.83	0.84	0.00	0.76	0.76	1,355.65
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	7.70	8.03	0.00	0.00	0.82	0.82	0.00	0.75	0.75	1,131.92
Paving On Road Diesel	0.01	0.10	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.09	1.75	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.52
Building 08/15/2013-01/07/2015	4.30	14.01	49.38	0.05	0.24	0.96	1.20	0.09	0.87	0.95	6,815.82
Building Off Road Diesel	2.88	8.34	10.20	0.00	0.00	0.70	0.70	0.00	0.64	0.64	1,621.20
Building Vendor Trips	0.33	3.80	3.58	0.01	0.04	0.15	0.19	0.01	0.14	0.15	1,028.00
Building Worker Trips	1.10	1.87	35.59	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,166.62
Time Slice 1/1/2014-4/25/2014 Active Days: 83	6.02	20.34	55.74	0.05	0.25	1.64	1.89	0.09	1.49	1.58	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	79.77	20.40	56.90	0.05	0.26	1.64	1.90	0.09	1.50	1.59	8,319.63
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Coating 04/28/2014-09/29/2014	73.75	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Architectural Coating	73.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.06	1.16	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.68
Time Slice 9/30/2014-12/22/2014 Active Days: 60	6.02	20.34	55.74	0.05	0.25	1.64	1.89	0.09	1.49	1.58	8,172.96
Asphalt 03/27/2013-12/22/2014	2.09	7.50	9.61	0.00	0.01	0.78	0.79	0.00	0.71	0.72	1,355.72
Paving Off-Gas	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.99	7.33	7.96	0.00	0.00	0.77	0.77	0.00	0.71	0.71	1,131.92
Paving On Road Diesel	0.01	0.09	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.22
Paving Worker Trips	0.05	0.08	1.62	0.00	0.01	0.01	0.02	0.00	0.00	0.01	204.58
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95

Time Slice 12/23/2014-12/31/2014 Active Days: 7	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building 08/15/2013-01/07/2015	3.93	12.85	46.13	0.05	0.24	0.86	1.10	0.09	0.78	0.87	6,817.24
Building Off Road Diesel	2.63	7.78	9.89	0.00	0.00	0.62	0.62	0.00	0.57	0.57	1,621.20
Building Vendor Trips	0.30	3.35	3.32	0.01	0.04	0.13	0.17	0.01	0.12	0.13	1,028.09
Building Worker Trips	1.00	1.72	32.92	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,167.95
Time Slice 1/1/2015-1/7/2015 Active Days: 5	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42
Building 08/15/2013-01/07/2015	3.59	11.73	43.14	0.05	0.24	0.80	1.04	0.09	0.72	0.81	6,818.42
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.27	2.94	3.08	0.01	0.04	0.12	0.16	0.01	0.11	0.12	1,028.19
Building Worker Trips	0.91	1.57	30.43	0.04	0.20	0.11	0.31	0.07	0.09	0.16	4,169.03

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase2Construction.urb924

Project Name: One Paseo Scenario 1 Phase 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2015 TOTALS (lbs/day unmitigated)	26.82	62.62	39.92	0.10	249.02	2.36	251.38	52.05	2.17	54.22	12,968.76
2015 TOTALS (lbs/day mitigated)	11.62	55.62	39.92	0.10	17.70	2.16	19.86	3.74	1.98	5.73	12,968.76
2016 TOTALS (lbs/day unmitigated)	24.17	14.87	26.96	0.03	0.16	0.84	1.00	0.06	0.77	0.83	4,885.84
2016 TOTALS (lbs/day mitigated)	9.62	10.40	26.96	0.03	0.16	0.68	0.84	0.06	0.61	0.67	4,885.84

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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Time Slice 1/22/2015-4/15/2015 Active Days: 60	5.50	**62.62**	26.42	**0.10**	**249.02**	**2.36**	**251.38**	**52.05**	**2.17**	**54.22**	**12,968.76**
Mass Grading 01/22/2015-04/15/2015	5.50	62.62	26.42	0.10	249.02	2.36	251.38	52.05	2.17	54.22	12,968.76
Mass Grading Dust	0.00	0.00	0.00	0.00	248.64	0.00	248.64	51.93	0.00	51.93	0.00
Mass Grading Off Road Diesel	2.26	17.50	10.40	0.00	0.00	0.81	0.81	0.00	0.74	0.74	2,247.32
Mass Grading On Road Diesel	3.23	45.07	15.37	0.10	0.37	1.55	1.92	0.12	1.42	1.55	10,628.66
Mass Grading Worker Trips	0.02	0.04	0.65	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.78
Time Slice 4/16/2015-9/30/2015 Active Days: 120	**26.82**	30.12	**39.92**	0.03	0.17	2.07	2.25	0.06	1.90	1.96	6,562.42
Asphalt 04/16/2015-09/30/2015	2.37	13.95	11.36	0.00	0.01	1.13	1.14	0.00	1.04	1.04	1,676.33
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.20	13.65	9.82	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,418.44
Paving On Road Diesel	0.01	0.21	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.13
Paving Worker Trips	0.05	0.09	1.47	0.00	0.01	0.01	0.02	0.00	0.00	0.01	208.75
Building 04/16/2015-07/11/2016	3.20	16.15	28.40	0.03	0.16	0.94	1.10	0.06	0.86	0.92	4,863.08
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	21.26	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

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Time Slice 10/1/2015-12/31/2015 Active Days: 66	24.45	16.16	28.56	0.03	0.16	0.95	1.11	0.06	0.86	0.92	4,886.09
Building 04/16/2015-07/11/2016	3.20	16.15	28.40	0.03	0.16	0.94	1.10	0.06	0.86	0.92	4,863.08
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	21.26	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 1/1/2016-7/11/2016 Active Days: 137	24.17	14.87	26.96	0.03	0.16	0.84	1.00	0.06	0.77	0.83	4,885.84
Building 04/16/2015-07/11/2016	2.91	14.86	26.81	0.03	0.16	0.84	1.00	0.06	0.77	0.82	4,862.83
Building Off Road Diesel	2.19	11.19	9.40	0.00	0.00	0.67	0.67	0.00	0.62	0.62	1,621.20
Building Vendor Trips	0.24	2.73	2.49	0.01	0.04	0.10	0.14	0.01	0.09	0.11	958.71
Building Worker Trips	0.48	0.94	14.91	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,282.93
Coating 04/16/2015-10/16/2016	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 7/12/2016-10/14/2016 Active Days: 69	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Coating 04/16/2015-10/16/2016	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

Phase Assumptions

Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

Total Acres Disturbed: 19.75

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Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1980 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2640

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

Acres to be Paved: 4.94

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/22/2015-4/15/2015 Active Days: 60	5.50	55.62	26.42	**0.10**	17.70	2.16	19.86	3.74	1.98	5.73	**12,968.76**
Mass Grading 01/22/2015-04/15/2015	5.50	55.62	26.42	0.10	17.70	2.16	19.86	3.74	1.98	5.73	12,968.76
Mass Grading Dust	0.00	0.00	0.00	0.00	17.32	0.00	17.32	3.62	0.00	3.62	0.00
Mass Grading Off Road Diesel	2.26	10.50	10.40	0.00	0.00	0.61	0.61	0.00	0.56	0.56	2,247.32
Mass Grading On Road Diesel	3.23	45.07	15.37	0.10	0.37	1.55	1.92	0.12	1.42	1.55	10,628.66
Mass Grading Worker Trips	0.02	0.04	0.65	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.78

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Time Slice 4/16/2015-9/30/2015 Active Days: 120	11.62	19.84	**39.92**	0.03	0.17	1.60	1.78	0.06	1.47	1.53	6,562.42
Asphalt 04/16/2015-09/30/2015	2.37	8.49	11.36	0.00	0.01	0.85	0.86	0.00	0.78	0.78	1,676.33
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.20	8.19	9.82	0.00	0.00	0.84	0.84	0.00	0.77	0.77	1,418.44
Paving On Road Diesel	0.01	0.21	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.13
Paving Worker Trips	0.05	0.09	1.47	0.00	0.01	0.01	0.02	0.00	0.00	0.01	208.75
Building 04/16/2015-07/11/2016	3.20	11.34	28.40	0.03	0.16	0.75	0.91	0.06	0.68	0.74	4,863.08
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	6.06	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 10/1/2015-12/31/2015 Active Days: 66	9.25	11.35	28.56	0.03	0.16	0.75	0.91	0.06	0.69	0.74	4,886.09
Building 04/16/2015-07/11/2016	3.20	11.34	28.40	0.03	0.16	0.75	0.91	0.06	0.68	0.74	4,863.08
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	6.06	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

Time Slice 1/1/2016-7/11/2016 Active Days: 137	9.62	10.40	26.96	0.03	0.16	0.68	0.84	0.06	0.61	0.67	4,885.84
Building 04/16/2015-07/11/2016	2.91	10.39	26.81	0.03	0.16	0.67	0.83	0.06	0.61	0.67	4,862.83
Building Off Road Diesel	2.19	6.71	9.40	0.00	0.00	0.51	0.51	0.00	0.46	0.46	1,621.20
Building Vendor Trips	0.24	2.73	2.49	0.01	0.04	0.10	0.14	0.01	0.09	0.11	958.71
Building Worker Trips	0.48	0.94	14.91	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,282.93
Coating 04/16/2015-10/16/2016	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 7/12/2016-10/14/2016 Active Days: 69	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Coating 04/16/2015-10/16/2016	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase2Construction.urb924

Project Name: One Paseo Scenario 1 Phase 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2015 TOTALS (lbs/day unmitigated)	26.82	62.62	39.92	0.10	249.02	2.36	251.38	52.05	2.17	54.22	12,968.76
2015 TOTALS (lbs/day mitigated)	11.62	55.62	39.92	0.10	17.70	2.16	19.86	3.74	1.98	5.73	12,968.76
2016 TOTALS (lbs/day unmitigated)	24.17	14.87	26.96	0.03	0.16	0.84	1.00	0.06	0.77	0.83	4,885.84
2016 TOTALS (lbs/day mitigated)	9.62	10.40	26.96	0.03	0.16	0.68	0.84	0.06	0.61	0.67	4,885.84

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

Time Slice 1/22/2015-4/15/2015 Active Days: 60	5.50	**62.62**	26.42	**0.10**	**249.02**	**2.36**	**251.38**	**52.05**	**2.17**	**54.22**	**12,968.76**
Mass Grading 01/22/2015-04/15/2015	5.50	62.62	26.42	0.10	249.02	2.36	251.38	52.05	2.17	54.22	12,968.76
Mass Grading Dust	0.00	0.00	0.00	0.00	248.64	0.00	248.64	51.93	0.00	51.93	0.00
Mass Grading Off Road Diesel	2.26	17.50	10.40	0.00	0.00	0.81	0.81	0.00	0.74	0.74	2,247.32
Mass Grading On Road Diesel	3.23	45.07	15.37	0.10	0.37	1.55	1.92	0.12	1.42	1.55	10,628.66
Mass Grading Worker Trips	0.02	0.04	0.65	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.78
Time Slice 4/16/2015-9/30/2015 Active Days: 120	**26.82**	30.12	**39.92**	0.03	0.17	2.07	2.25	0.06	1.90	1.96	6,562.42
Asphalt 04/16/2015-09/30/2015	2.37	13.95	11.36	0.00	0.01	1.13	1.14	0.00	1.04	1.04	1,676.33
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.20	13.65	9.82	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,418.44
Paving On Road Diesel	0.01	0.21	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.13
Paving Worker Trips	0.05	0.09	1.47	0.00	0.01	0.01	0.02	0.00	0.00	0.01	208.75
Building 04/16/2015-07/11/2016	3.20	16.15	28.40	0.03	0.16	0.94	1.10	0.06	0.86	0.92	4,863.08
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	21.26	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

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Time Slice 10/1/2015-12/31/2015 Active Days: 66	24.45	16.16	28.56	0.03	0.16	0.95	1.11	0.06	0.86	0.92	4,886.09
Building 04/16/2015-07/11/2016	3.20	16.15	28.40	0.03	0.16	0.94	1.10	0.06	0.86	0.92	4,863.08
Building Off Road Diesel	2.40	12.04	9.62	0.00	0.00	0.76	0.76	0.00	0.70	0.70	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	21.26	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 1/1/2016-7/11/2016 Active Days: 137	24.17	14.87	26.96	0.03	0.16	0.84	1.00	0.06	0.77	0.83	4,885.84
Building 04/16/2015-07/11/2016	2.91	14.86	26.81	0.03	0.16	0.84	1.00	0.06	0.77	0.82	4,862.83
Building Off Road Diesel	2.19	11.19	9.40	0.00	0.00	0.67	0.67	0.00	0.62	0.62	1,621.20
Building Vendor Trips	0.24	2.73	2.49	0.01	0.04	0.10	0.14	0.01	0.09	0.11	958.71
Building Worker Trips	0.48	0.94	14.91	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,282.93
Coating 04/16/2015-10/16/2016	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 7/12/2016-10/14/2016 Active Days: 69	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Coating 04/16/2015-10/16/2016	21.26	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	21.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

Phase Assumptions

Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

Total Acres Disturbed: 19.75

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Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1980 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2640

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

Acres to be Paved: 4.94

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/22/2015-4/15/2015 Active Days: 60	5.50	55.62	26.42	**0.10**	17.70	2.16	19.86	3.74	1.98	5.73	**12,968.76**
Mass Grading 01/22/2015-04/15/2015	5.50	55.62	26.42	0.10	17.70	2.16	19.86	3.74	1.98	5.73	12,968.76
Mass Grading Dust	0.00	0.00	0.00	0.00	17.32	0.00	17.32	3.62	0.00	3.62	0.00
Mass Grading Off Road Diesel	2.26	10.50	10.40	0.00	0.00	0.61	0.61	0.00	0.56	0.56	2,247.32
Mass Grading On Road Diesel	3.23	45.07	15.37	0.10	0.37	1.55	1.92	0.12	1.42	1.55	10,628.66
Mass Grading Worker Trips	0.02	0.04	0.65	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.78

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Time Slice 4/16/2015-9/30/2015 Active Days: 120	11.62	19.84	**39.92**	0.03	0.17	1.60	1.78	0.06	1.47	1.53	6,562.42
Asphalt 04/16/2015-09/30/2015	2.37	8.49	11.36	0.00	0.01	0.85	0.86	0.00	0.78	0.78	1,676.33
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.20	8.19	9.82	0.00	0.00	0.84	0.84	0.00	0.77	0.77	1,418.44
Paving On Road Diesel	0.01	0.21	0.07	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.13
Paving Worker Trips	0.05	0.09	1.47	0.00	0.01	0.01	0.02	0.00	0.00	0.01	208.75
Building 04/16/2015-07/11/2016	3.20	11.34	28.40	0.03	0.16	0.75	0.91	0.06	0.68	0.74	4,863.08
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	6.06	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 10/1/2015-12/31/2015 Active Days: 66	9.25	11.35	28.56	0.03	0.16	0.75	0.91	0.06	0.69	0.74	4,886.09
Building 04/16/2015-07/11/2016	3.20	11.34	28.40	0.03	0.16	0.75	0.91	0.06	0.68	0.74	4,863.08
Building Off Road Diesel	2.40	7.22	9.62	0.00	0.00	0.57	0.57	0.00	0.53	0.53	1,621.20
Building Vendor Trips	0.26	3.09	2.68	0.01	0.04	0.11	0.15	0.01	0.10	0.12	958.70
Building Worker Trips	0.53	1.02	16.09	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,283.19
Coating 04/16/2015-10/16/2016	6.06	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

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Time Slice 1/1/2016-7/11/2016 Active Days: 137	9.62	10.40	26.96	0.03	0.16	0.68	0.84	0.06	0.61	0.67	4,885.84
Building 04/16/2015-07/11/2016	2.91	10.39	26.81	0.03	0.16	0.67	0.83	0.06	0.61	0.67	4,862.83
Building Off Road Diesel	2.19	6.71	9.40	0.00	0.00	0.51	0.51	0.00	0.46	0.46	1,621.20
Building Vendor Trips	0.24	2.73	2.49	0.01	0.04	0.10	0.14	0.01	0.09	0.11	958.71
Building Worker Trips	0.48	0.94	14.91	0.02	0.12	0.07	0.19	0.04	0.05	0.10	2,282.93
Coating 04/16/2015-10/16/2016	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Time Slice 7/12/2016-10/14/2016 Active Days: 69	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Coating 04/16/2015-10/16/2016	6.71	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01
Architectural Coating	6.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23.01

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase3Construction.urb924

Project Name: One Paseo Scenario 1 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (lbs/day unmitigated)	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
2016 TOTALS (lbs/day mitigated)	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
2017 TOTALS (lbs/day unmitigated)	36.52	70.66	44.39	0.13	293.74	3.05	296.79	61.41	2.80	64.21	17,521.30
2017 TOTALS (lbs/day mitigated)	7.38	60.71	44.39	0.13	20.93	2.68	23.61	4.43	2.46	6.89	17,521.30
2018 TOTALS (lbs/day unmitigated)	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
2018 TOTALS (lbs/day mitigated)	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
2019 TOTALS (lbs/day unmitigated)	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
2019 TOTALS (lbs/day mitigated)	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.13	16.07	10.09	0.00	0.00	0.75	0.75	0.00	0.69	0.69	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	**70.66**	35.57	**0.13**	**293.74**	**3.05**	**296.79**	**61.41**	**2.80**	**64.21**	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	26.59	**<u>44.39</u>**	0.05	0.27	1.69	1.97	0.10	1.54	1.64	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	**<u>36.52</u>**	16.17	35.64	0.05	0.26	0.87	1.14	0.09	0.79	0.88	7,030.50
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	33.43	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
Building 10/04/2017-06/11/2019	2.80	14.80	33.30	0.05	0.26	0.78	1.04	0.09	0.70	0.80	6,994.02
Building Off Road Diesel	1.78	9.66	9.01	0.00	0.00	0.52	0.52	0.00	0.48	0.48	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	33.43	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
Building 10/04/2017-06/11/2019	2.56	13.60	31.40	0.05	0.26	0.69	0.95	0.09	0.62	0.72	6,993.78
Building Off Road Diesel	1.62	8.96	8.86	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	33.43	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.13	9.64	10.09	0.00	0.00	0.57	0.57	0.00	0.52	0.52	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	60.71	35.57	**0.13**	20.93	2.68	23.61	4.43	2.46	6.89	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	18.35	**44.39**	0.05	0.27	1.34	1.61	0.10	1.22	1.32	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	4.25	12.00	35.64	0.05	0.26	0.72	0.99	0.09	0.65	0.75	7,030.50
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	1.16	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

Time Slice 1/1/2018-12/31/2018 Active Days: 261	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
Building 10/04/2017-06/11/2019	2.80	10.94	33.30	0.05	0.26	0.65	0.91	0.09	0.58	0.68	6,994.02
Building Off Road Diesel	1.78	5.79	9.01	0.00	0.00	0.39	0.39	0.00	0.36	0.36	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	13.09	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	13.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96
Building 10/04/2017-06/11/2019	2.56	10.01	31.40	0.05	0.26	0.58	0.84	0.09	0.52	0.61	6,993.78
Building Off Road Diesel	1.62	5.37	8.86	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	5.82	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	5.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase3Construction.urb924

Project Name: One Paseo Scenario 1 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (lbs/day unmitigated)	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
2016 TOTALS (lbs/day mitigated)	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
2017 TOTALS (lbs/day unmitigated)	36.52	70.66	44.39	0.13	293.74	3.05	296.79	61.41	2.80	64.21	17,521.30
2017 TOTALS (lbs/day mitigated)	7.38	60.71	44.39	0.13	20.93	2.68	23.61	4.43	2.46	6.89	17,521.30
2018 TOTALS (lbs/day unmitigated)	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
2018 TOTALS (lbs/day mitigated)	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
2019 TOTALS (lbs/day unmitigated)	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
2019 TOTALS (lbs/day mitigated)	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.13	16.07	10.09	0.00	0.00	0.75	0.75	0.00	0.69	0.69	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	**70.66**	35.57	**0.13**	**293.74**	**3.05**	**296.79**	**61.41**	**2.80**	**64.21**	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	26.59	**44.39**	0.05	0.27	1.69	1.97	0.10	1.54	1.64	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	**36.52**	16.17	35.64	0.05	0.26	0.87	1.14	0.09	0.79	0.88	7,030.50
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	33.43	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
Building 10/04/2017-06/11/2019	2.80	14.80	33.30	0.05	0.26	0.78	1.04	0.09	0.70	0.80	6,994.02
Building Off Road Diesel	1.78	9.66	9.01	0.00	0.00	0.52	0.52	0.00	0.48	0.48	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	33.43	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
Building 10/04/2017-06/11/2019	2.56	13.60	31.40	0.05	0.26	0.69	0.95	0.09	0.62	0.72	6,993.78
Building Off Road Diesel	1.62	8.96	8.86	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	33.43	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.13	9.64	10.09	0.00	0.00	0.57	0.57	0.00	0.52	0.52	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	60.71	35.57	**0.13**	20.93	2.68	23.61	4.43	2.46	6.89	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016- 01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	18.35	**44.39**	0.05	0.27	1.34	1.61	0.10	1.22	1.32	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	4.25	12.00	35.64	0.05	0.26	0.72	0.99	0.09	0.65	0.75	7,030.50
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	1.16	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
Building 10/04/2017-06/11/2019	2.80	10.94	33.30	0.05	0.26	0.65	0.91	0.09	0.58	0.68	6,994.02
Building Off Road Diesel	1.78	5.79	9.01	0.00	0.00	0.39	0.39	0.00	0.36	0.36	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	13.09	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	13.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96
Building 10/04/2017-06/11/2019	2.56	10.01	31.40	0.05	0.26	0.58	0.84	0.09	0.52	0.61	6,993.78
Building Off Road Diesel	1.62	5.37	8.86	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	5.82	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	5.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1Construction.urb924

Project Name: One Paseo Scenario 1 Phase 1 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.04	0.53	0.21	0.00	1.67	0.02	1.69	0.35	0.02	0.37	83.45
2012 TOTALS (tons/year mitigated)	0.04	0.48	0.21	0.00	0.12	0.02	0.14	0.03	0.02	0.04	83.45
Percent Reduction	0.00	9.10	0.00	0.00	92.89	6.93	91.81	92.81	6.93	88.25	0.00
2013 TOTALS (tons/year unmitigated)	0.80	6.52	5.20	0.01	14.25	0.34	14.59	2.98	0.31	3.29	1,198.58
2013 TOTALS (tons/year mitigated)	0.80	5.23	5.20	0.01	1.02	0.29	1.31	0.22	0.26	0.48	1,198.58
Percent Reduction	0.00	19.74	0.00	0.00	92.81	15.77	91.01	92.67	15.81	85.38	0.00
2014 TOTALS (tons/year unmitigated)	7.60	3.93	7.30	0.01	0.03	0.27	0.30	0.01	0.25	0.26	1,069.97
2014 TOTALS (tons/year mitigated)	4.87	2.63	7.30	0.01	0.03	0.21	0.24	0.01	0.19	0.20	1,069.97
Percent Reduction	35.89	33.02	0.00	0.00	0.00	21.95	19.54	0.00	22.11	21.09	0.00
2015 TOTALS (tons/year unmitigated)	0.01	0.04	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
2015 TOTALS (tons/year mitigated)	0.01	0.03	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
Percent Reduction	0.00	29.10	0.00	0.00	0.00	19.24	15.47	0.00	19.53	17.82	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2012	0.04	0.53	0.21	0.00	1.67	0.02	1.69	0.35	0.02	0.37	83.45
Mass Grading 12/17/2012-05/07/2013	0.04	0.53	0.21	0.00	1.67	0.02	1.69	0.35	0.02	0.37	83.45
Mass Grading Dust	0.00	0.00	0.00	0.00	1.66	0.00	1.66	0.35	0.00	0.35	0.00
Mass Grading Off Road Diesel	0.01	0.12	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	12.36
Mass Grading On Road Diesel	0.03	0.41	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.53
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56

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2013	0.80	6.52	5.20	0.01	14.25	0.34	14.59	2.98	0.31	3.29	1,198.58
Mass Grading 12/17/2012-05/07/2013	0.33	3.94	1.60	0.01	13.79	0.16	13.94	2.88	0.14	3.03	690.39
Mass Grading Dust	0.00	0.00	0.00	0.00	13.77	0.00	13.77	2.87	0.00	2.87	0.00
Mass Grading Off Road Diesel	0.12	0.94	0.51	0.00	0.00	0.04	0.04	0.00	0.04	0.04	102.25
Mass Grading On Road Diesel	0.21	3.00	1.06	0.01	0.02	0.11	0.13	0.01	0.10	0.11	583.48
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.65
Asphalt 03/27/2013-12/22/2014	0.22	1.30	0.98	0.00	0.00	0.11	0.11	0.00	0.10	0.10	135.57
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.21	1.28	0.80	0.00	0.00	0.11	0.11	0.00	0.10	0.10	113.19
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92
Paving Worker Trips	0.01	0.01	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.45
Fine Grading 05/08/2013-06/18/2013	0.04	0.31	0.18	0.00	0.45	0.01	0.46	0.09	0.01	0.11	35.24
Fine Grading Dust	0.00	0.00	0.00	0.00	0.45	0.00	0.45	0.09	0.00	0.09	0.00
Fine Grading Off Road Diesel	0.04	0.31	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.71
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53
Building 08/15/2013-01/07/2015	0.21	0.97	2.44	0.00	0.01	0.06	0.07	0.00	0.05	0.06	337.38
Building Off Road Diesel	0.14	0.69	0.51	0.00	0.00	0.05	0.05	0.00	0.04	0.04	80.25
Building Vendor Trips	0.02	0.19	0.18	0.00	0.00	0.01	0.01	0.00	0.01	0.01	50.89
Building Worker Trips	0.05	0.09	1.76	0.00	0.01	0.01	0.02	0.00	0.00	0.01	206.25

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2014	7.60	3.93	7.30	0.01	0.03	0.27	0.30	0.01	0.25	0.26	1,069.97
Asphalt 03/27/2013-12/22/2014	0.27	1.57	1.22	0.00	0.00	0.13	0.13	0.00	0.12	0.12	172.18
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.25	1.55	1.01	0.00	0.00	0.13	0.13	0.00	0.12	0.12	143.75
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44
Paving Worker Trips	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Building 08/15/2013-01/07/2015	0.51	2.35	6.02	0.01	0.03	0.14	0.17	0.01	0.13	0.14	889.65
Building Off Road Diesel	0.34	1.69	1.29	0.00	0.00	0.11	0.11	0.00	0.10	0.10	211.57
Building Vendor Trips	0.04	0.44	0.43	0.00	0.00	0.02	0.02	0.00	0.02	0.02	134.17
Building Worker Trips	0.13	0.22	4.30	0.01	0.03	0.01	0.04	0.01	0.01	0.02	543.92
Coating 04/28/2014-09/29/2014	6.82	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.14
Architectural Coating	6.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.14
2015	0.01	0.04	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
Building 08/15/2013-01/07/2015	0.01	0.04	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
Building Off Road Diesel	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57
Building Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.42

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3185.23

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 7.31

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

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2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012	0.04	0.48	0.21	0.00	0.12	0.02	0.14	0.03	0.02	0.04	83.45
Mass Grading 12/17/2012-05/07/2013	0.04	0.48	0.21	0.00	0.12	0.02	0.14	0.03	0.02	0.04	83.45
Mass Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	0.01	0.07	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.36
Mass Grading On Road Diesel	0.03	0.41	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.53
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
2013	0.80	5.23	5.20	0.01	1.02	0.29	1.31	0.22	0.26	0.48	1,198.58

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Mass Grading 12/17/2012-05/07/2013	0.33	3.56	1.60	0.01	0.98	0.15	1.13	0.21	0.13	0.34	690.39
Mass Grading Dust	0.00	0.00	0.00	0.00	0.96	0.00	0.96	0.20	0.00	0.20	0.00
Mass Grading Off Road Diesel	0.12	0.56	0.51	0.00	0.00	0.03	0.03	0.00	0.03	0.03	102.25
Mass Grading On Road Diesel	0.21	3.00	1.06	0.01	0.02	0.11	0.13	0.01	0.10	0.11	583.48
Mass Grading Worker Trips	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.65
Asphalt 03/27/2013-12/22/2014	0.22	0.79	0.98	0.00	0.00	0.08	0.08	0.00	0.08	0.08	135.57
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.21	0.77	0.80	0.00	0.00	0.08	0.08	0.00	0.08	0.08	113.19
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.92
Paving Worker Trips	0.01	0.01	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.45
Fine Grading 05/08/2013-06/18/2013	0.04	0.19	0.18	0.00	0.03	0.01	0.04	0.01	0.01	0.02	35.24
Fine Grading Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.03	0.01	0.00	0.01	0.00
Fine Grading Off Road Diesel	0.04	0.19	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	33.71
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53
Building 08/15/2013-01/07/2015	0.21	0.69	2.44	0.00	0.01	0.05	0.06	0.00	0.04	0.05	337.38
Building Off Road Diesel	0.14	0.41	0.51	0.00	0.00	0.03	0.03	0.00	0.03	0.03	80.25
Building Vendor Trips	0.02	0.19	0.18	0.00	0.00	0.01	0.01	0.00	0.01	0.01	50.89
Building Worker Trips	0.05	0.09	1.76	0.00	0.01	0.01	0.02	0.00	0.00	0.01	206.25

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2014	4.87	2.63	7.30	0.01	0.03	0.21	0.24	0.01	0.19	0.20	1,069.97
Asphalt 03/27/2013-12/22/2014	0.27	0.95	1.22	0.00	0.00	0.10	0.10	0.00	0.09	0.09	172.18
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.25	0.93	1.01	0.00	0.00	0.10	0.10	0.00	0.09	0.09	143.75
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.44
Paving Worker Trips	0.01	0.01	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	25.98
Building 08/15/2013-01/07/2015	0.51	1.68	6.02	0.01	0.03	0.11	0.14	0.01	0.10	0.11	889.65
Building Off Road Diesel	0.34	1.02	1.29	0.00	0.00	0.08	0.08	0.00	0.07	0.07	211.57
Building Vendor Trips	0.04	0.44	0.43	0.00	0.00	0.02	0.02	0.00	0.02	0.02	134.17
Building Worker Trips	0.13	0.22	4.30	0.01	0.03	0.01	0.04	0.01	0.01	0.02	543.92
Coating 04/28/2014-09/29/2014	4.09	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.14
Architectural Coating	4.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.14
2015	0.01	0.03	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
Building 08/15/2013-01/07/2015	0.01	0.03	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17.05
Building Off Road Diesel	0.01	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.05
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.57
Building Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.42

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 6/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

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For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 5/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase2Construction.urb924

Project Name: One Paseo Scenario 1 Phase 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2015 TOTALS (tons/year unmitigated)	2.58	4.22	4.13	0.01	7.49	0.23	7.71	1.57	0.21	1.77	944.05
2015 TOTALS (tons/year mitigated)	1.17	3.23	4.13	0.01	0.55	0.19	0.73	0.12	0.17	0.29	944.05
Percent Reduction	54.77	23.36	0.00	0.00	92.70	17.90	90.50	92.48	17.98	83.78	0.00
2016 TOTALS (tons/year unmitigated)	2.39	1.02	1.85	0.00	0.01	0.06	0.07	0.00	0.05	0.06	335.47
2016 TOTALS (tons/year mitigated)	0.89	0.71	1.85	0.00	0.01	0.05	0.06	0.00	0.04	0.05	335.47
Percent Reduction	62.74	30.09	0.00	0.00	0.00	19.95	16.76	0.00	20.18	18.77	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2015	2.58	4.22	4.13	0.01	7.49	0.23	7.71	1.57	0.21	1.77	944.05
Mass Grading 01/22/2015-04/15/2015	0.17	1.88	0.79	0.00	7.47	0.07	7.54	1.56	0.07	1.63	389.06
Mass Grading Dust	0.00	0.00	0.00	0.00	7.46	0.00	7.46	1.56	0.00	1.56	0.00
Mass Grading Off Road Diesel	0.07	0.53	0.31	0.00	0.00	0.02	0.02	0.00	0.02	0.02	67.42
Mass Grading On Road Diesel	0.10	1.35	0.46	0.00	0.01	0.05	0.06	0.00	0.04	0.05	318.86
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78
Asphalt 04/16/2015-09/30/2015	0.14	0.84	0.68	0.00	0.00	0.07	0.07	0.00	0.06	0.06	100.58
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.82	0.59	0.00	0.00	0.07	0.07	0.00	0.06	0.06	85.11
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95
Paving Worker Trips	0.00	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.53
Building 04/16/2015-07/11/2016	0.30	1.50	2.64	0.00	0.01	0.09	0.10	0.01	0.08	0.09	452.27
Building Off Road Diesel	0.22	1.12	0.89	0.00	0.00	0.07	0.07	0.00	0.07	0.07	150.77
Building Vendor Trips	0.02	0.29	0.25	0.00	0.00	0.01	0.01	0.00	0.01	0.01	89.16
Building Worker Trips	0.05	0.10	1.50	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.34
Coating 04/16/2015-10/16/2016	1.98	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14
Architectural Coating	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14

2016	2.39	1.02	1.85	0.00	0.01	0.06	0.07	0.00	0.05	0.06	335.47
Building 04/16/2015-07/11/2016	0.20	1.02	1.84	0.00	0.01	0.06	0.07	0.00	0.05	0.06	333.10
Building Off Road Diesel	0.15	0.77	0.64	0.00	0.00	0.05	0.05	0.00	0.04	0.04	111.05
Building Vendor Trips	0.02	0.19	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	65.67
Building Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	156.38
Coating 04/16/2015-10/16/2016	2.19	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37
Architectural Coating	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37

Phase Assumptions

Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

Total Acres Disturbed: 19.75

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 1980 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2640

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

Acres to be Paved: 4.94

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

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1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2015	1.17	3.23	4.13	0.01	0.55	0.19	0.73	0.12	0.17	0.29	944.05
Mass Grading 01/22/2015-04/15/2015	0.17	1.67	0.79	0.00	0.53	0.06	0.60	0.11	0.06	0.17	389.06
Mass Grading Dust	0.00	0.00	0.00	0.00	0.52	0.00	0.52	0.11	0.00	0.11	0.00
Mass Grading Off Road Diesel	0.07	0.32	0.31	0.00	0.00	0.02	0.02	0.00	0.02	0.02	67.42
Mass Grading On Road Diesel	0.10	1.35	0.46	0.00	0.01	0.05	0.06	0.00	0.04	0.05	318.86
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.78
Asphalt 04/16/2015-09/30/2015	0.14	0.51	0.68	0.00	0.00	0.05	0.05	0.00	0.05	0.05	100.58
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.13	0.49	0.59	0.00	0.00	0.05	0.05	0.00	0.05	0.05	85.11
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95
Paving Worker Trips	0.00	0.01	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.53
Building 04/16/2015-07/11/2016	0.30	1.05	2.64	0.00	0.01	0.07	0.08	0.01	0.06	0.07	452.27
Building Off Road Diesel	0.22	0.67	0.89	0.00	0.00	0.05	0.05	0.00	0.05	0.05	150.77
Building Vendor Trips	0.02	0.29	0.25	0.00	0.00	0.01	0.01	0.00	0.01	0.01	89.16
Building Worker Trips	0.05	0.10	1.50	0.00	0.01	0.01	0.02	0.00	0.01	0.01	212.34
Coating 04/16/2015-10/16/2016	0.56	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14
Architectural Coating	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14

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2016	0.89	0.71	1.85	0.00	0.01	0.05	0.06	0.00	0.04	0.05	335.47
Building 04/16/2015-07/11/2016	0.20	0.71	1.84	0.00	0.01	0.05	0.06	0.00	0.04	0.05	333.10
Building Off Road Diesel	0.15	0.46	0.64	0.00	0.00	0.03	0.03	0.00	0.03	0.03	111.05
Building Vendor Trips	0.02	0.19	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	65.67
Building Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	156.38
Coating 04/16/2015-10/16/2016	0.69	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37
Architectural Coating	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.37

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 1/22/2015 - 4/15/2015 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

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PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 4/16/2015 - 9/30/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 4/16/2015 - 7/11/2016 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/16/2015 - 10/16/2016 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase3Construction.urb924

Project Name: One Paseo Scenario 1 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (tons/year unmitigated)	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
2016 TOTALS (tons/year mitigated)	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Percent Reduction	0.00	9.50	0.00	0.00	92.88	7.49	92.15	92.79	7.49	89.69	0.00
2017 TOTALS (tons/year unmitigated)	0.71	2.09	2.21	0.00	3.09	0.13	3.22	0.65	0.11	0.76	515.06
2017 TOTALS (tons/year mitigated)	0.34	1.53	2.21	0.00	0.23	0.10	0.33	0.05	0.09	0.14	515.06
Percent Reduction	52.55	26.96	0.00	0.00	92.60	19.84	89.76	92.31	19.92	81.41	0.00
2018 TOTALS (tons/year unmitigated)	4.73	1.93	4.37	0.01	0.03	0.10	0.14	0.01	0.09	0.10	917.44
2018 TOTALS (tons/year mitigated)	2.07	1.43	4.37	0.01	0.03	0.08	0.12	0.01	0.08	0.09	917.44
Percent Reduction	56.14	26.07	0.00	0.00	0.00	16.76	12.52	0.00	17.08	15.07	0.00
2019 TOTALS (tons/year unmitigated)	2.09	0.79	1.83	0.00	0.02	0.04	0.06	0.01	0.04	0.04	407.74
2019 TOTALS (tons/year mitigated)	0.49	0.58	1.83	0.00	0.02	0.03	0.05	0.01	0.03	0.04	407.74
Percent Reduction	76.72	26.33	0.00	0.00	0.00	16.22	11.75	0.00	16.57	14.41	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2016	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
Mass Grading 11/15/2016-01/30/2017	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
Mass Grading Dust	0.00	0.00	0.00	0.00	4.99	0.00	4.99	1.04	0.00	1.04	0.00
Mass Grading Off Road Diesel	0.04	0.27	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	38.20
Mass Grading On Road Diesel	0.07	0.88	0.31	0.00	0.01	0.03	0.04	0.00	0.03	0.03	234.78
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58

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2017	0.71	2.09	2.21	0.00	3.09	0.13	3.22	0.65	0.11	0.76	515.06
Mass Grading 11/15/2016-01/30/2017	0.06	0.63	0.28	0.00	3.08	0.02	3.11	0.64	0.02	0.67	169.58
Mass Grading Dust	0.00	0.00	0.00	0.00	3.08	0.00	3.08	0.64	0.00	0.64	0.00
Mass Grading Off Road Diesel	0.02	0.15	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	23.60
Mass Grading On Road Diesel	0.04	0.48	0.17	0.00	0.01	0.02	0.02	0.00	0.01	0.02	145.01
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Asphalt 01/29/2017-10/10/2017	0.17	0.95	0.82	0.00	0.00	0.07	0.08	0.00	0.07	0.07	124.74
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.15	0.93	0.71	0.00	0.00	0.07	0.07	0.00	0.07	0.07	103.00
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.85
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.88
Building 10/04/2017-06/11/2019	0.10	0.51	1.12	0.00	0.01	0.03	0.04	0.00	0.02	0.03	220.32
Building Off Road Diesel	0.06	0.33	0.29	0.00	0.00	0.02	0.02	0.00	0.02	0.02	51.07
Building Vendor Trips	0.01	0.14	0.13	0.00	0.00	0.01	0.01	0.00	0.00	0.01	54.30
Building Worker Trips	0.02	0.04	0.69	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.96
Coating 11/29/2017-06/11/2019	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
Architectural Coating	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42

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2018	4.73	1.93	4.37	0.01	0.03	0.10	0.14	0.01	0.09	0.10	917.44
Building 10/04/2017-06/11/2019	0.37	1.93	4.35	0.01	0.03	0.10	0.14	0.01	0.09	0.10	912.72
Building Off Road Diesel	0.23	1.26	1.18	0.00	0.00	0.07	0.07	0.00	0.06	0.06	211.57
Building Vendor Trips	0.05	0.51	0.51	0.00	0.01	0.02	0.03	0.00	0.02	0.02	224.95
Building Worker Trips	0.08	0.16	2.66	0.00	0.03	0.01	0.04	0.01	0.01	0.02	476.21
Coating 11/29/2017-06/11/2019	4.36	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
Architectural Coating	4.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
2019	2.09	0.79	1.83	0.00	0.02	0.04	0.06	0.01	0.04	0.04	407.74
Building 10/04/2017-06/11/2019	0.15	0.79	1.82	0.00	0.02	0.04	0.06	0.01	0.04	0.04	405.64
Building Off Road Diesel	0.09	0.52	0.51	0.00	0.00	0.03	0.03	0.00	0.02	0.02	94.03
Building Vendor Trips	0.02	0.20	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	99.98
Building Worker Trips	0.03	0.07	1.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	211.63
Coating 11/29/2017-06/11/2019	1.94	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
Architectural Coating	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

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1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

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	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Mass Grading 11/15/2016-01/30/2017	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Mass Grading Dust	0.00	0.00	0.00	0.00	0.35	0.00	0.35	0.07	0.00	0.07	0.00
Mass Grading Off Road Diesel	0.04	0.16	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	38.20
Mass Grading On Road Diesel	0.07	0.88	0.31	0.00	0.01	0.03	0.04	0.00	0.03	0.03	234.78
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58

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2017	0.34	1.53	2.21	0.00	0.23	0.10	0.33	0.05	0.09	0.14	515.06
Mass Grading 11/15/2016-01/30/2017	0.06	0.57	0.28	0.00	0.22	0.02	0.24	0.05	0.02	0.07	169.58
Mass Grading Dust	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.04	0.00	0.04	0.00
Mass Grading Off Road Diesel	0.02	0.09	0.10	0.00	0.00	0.01	0.01	0.00	0.00	0.00	23.60
Mass Grading On Road Diesel	0.04	0.48	0.17	0.00	0.01	0.02	0.02	0.00	0.01	0.02	145.01
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Asphalt 01/29/2017-10/10/2017	0.17	0.58	0.82	0.00	0.00	0.06	0.06	0.00	0.05	0.05	124.74
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.15	0.56	0.71	0.00	0.00	0.06	0.06	0.00	0.05	0.05	103.00
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.85
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.88
Building 10/04/2017-06/11/2019	0.10	0.38	1.12	0.00	0.01	0.02	0.03	0.00	0.02	0.02	220.32
Building Off Road Diesel	0.06	0.20	0.29	0.00	0.00	0.01	0.01	0.00	0.01	0.01	51.07
Building Vendor Trips	0.01	0.14	0.13	0.00	0.00	0.01	0.01	0.00	0.00	0.01	54.30
Building Worker Trips	0.02	0.04	0.69	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.96
Coating 11/29/2017-06/11/2019	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
Architectural Coating	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42

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2018	2.07	1.43	4.37	0.01	0.03	0.08	0.12	0.01	0.08	0.09	917.44
Building 10/04/2017-06/11/2019	0.37	1.43	4.35	0.01	0.03	0.08	0.12	0.01	0.08	0.09	912.72
Building Off Road Diesel	0.23	0.76	1.18	0.00	0.00	0.05	0.05	0.00	0.05	0.05	211.57
Building Vendor Trips	0.05	0.51	0.51	0.00	0.01	0.02	0.03	0.00	0.02	0.02	224.95
Building Worker Trips	0.08	0.16	2.66	0.00	0.03	0.01	0.04	0.01	0.01	0.02	476.21
Coating 11/29/2017-06/11/2019	1.71	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
Architectural Coating	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
2019	0.49	0.58	1.83	0.00	0.02	0.03	0.05	0.01	0.03	0.04	407.74
Building 10/04/2017-06/11/2019	0.15	0.58	1.82	0.00	0.02	0.03	0.05	0.01	0.03	0.04	405.64
Building Off Road Diesel	0.09	0.31	0.51	0.00	0.00	0.02	0.02	0.00	0.02	0.02	94.03
Building Vendor Trips	0.02	0.20	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	99.98
Building Worker Trips	0.03	0.07	1.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	211.63
Coating 11/29/2017-06/11/2019	0.34	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
Architectural Coating	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

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PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase1-2Construction.urb924

Project Name: One Paseo Scenario 2 Phase 1 and 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
2012 TOTALS (lbs/day mitigated)	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
2013 TOTALS (lbs/day unmitigated)	16.36	144.98	114.69	0.09	332.87	7.13	340.00	69.56	6.56	76.12	19,664.90
2013 TOTALS (lbs/day mitigated)	16.36	105.68	114.69	0.09	23.51	5.78	29.29	4.95	5.32	10.27	19,664.90
2014 TOTALS (lbs/day unmitigated)	187.55	52.46	83.62	0.08	0.38	3.19	3.57	0.14	2.91	3.05	13,327.74
2014 TOTALS (lbs/day mitigated)	116.16	35.02	83.62	0.08	0.38	2.49	2.87	0.14	2.27	2.41	13,327.74
2015 TOTALS (lbs/day unmitigated)	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
2015 TOTALS (lbs/day mitigated)	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
Mass Grading 12/17/2012-07/07/2013	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.90	39.51	21.74	0.00	0.00	1.99	1.99	0.00	1.83	1.83	3,954.75
Mass Grading On Road Diesel	3.63	52.41	18.14	0.08	0.32	1.96	2.28	0.10	1.81	1.91	9,020.85
Mass Grading Worker Trips	0.05	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.89
Time Slice 1/1/2013-3/26/2013 Active Days: 61	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	10.52	98.44	49.02	0.09	302.86	4.86	307.72	63.29	4.47	67.76	14,583.94
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 5/8/2013-7/5/2013 Active Days: 43	16.36	**144.98**	76.77	**0.09**	**332.87**	**7.13**	**340.00**	**69.56**	**6.56**	**76.12**	**19,664.90**
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 7/8/2013-8/14/2013 Active Days: 28	8.35	61.44	37.98	0.00	30.02	3.56	33.58	6.27	3.27	9.54	6,510.35
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013- 08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/15/2013-8/16/2013 Active Days: 2	15.56	103.21	**114.69**	0.08	30.38	5.78	36.16	6.40	5.30	11.70	18,193.52
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	41.77	76.71	0.08	0.36	2.22	2.58	0.13	2.02	2.15	11,683.16
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Fine Grading 05/08/2013-08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/19/2013-12/31/2013 Active Days: 97	9.71	56.67	86.94	0.08	0.37	3.51	3.88	0.13	3.21	3.34	13,112.55
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	41.77	76.71	0.08	0.36	2.22	2.58	0.13	2.02	2.15	11,683.16
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Time Slice 1/1/2014-4/25/2014 Active Days: 83	9.01	52.37	81.93	0.08	0.37	3.18	3.55	0.13	2.91	3.04	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	**187.55**	52.46	83.62	0.08	0.38	3.19	3.57	0.14	2.91	3.05	13,327.74
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Coating 04/28/2014-09/29/2014	178.54	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Architectural Coating	178.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Time Slice 9/30/2014-12/22/2014 Active Days: 60	9.01	52.37	81.93	0.08	0.37	3.18	3.55	0.13	2.91	3.04	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 12/23/2014-12/31/2014 Active Days: 7	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Time Slice 1/1/2015-1/7/2015 Active Days: 5	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
Building 08/15/2013-01/07/2015	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.49	5.36	5.46	0.02	0.07	0.21	0.28	0.02	0.19	0.22	1,852.88
Building Worker Trips	1.32	2.27	44.00	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,027.85

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

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Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2240.64

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 11.09

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
Mass Grading 12/17/2012-07/07/2013	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.90	23.71	21.74	0.00	0.00	1.50	1.50	0.00	1.38	1.38	3,954.75
Mass Grading On Road Diesel	3.63	52.41	18.14	0.08	0.32	1.96	2.28	0.10	1.81	1.91	9,020.85
Mass Grading Worker Trips	0.05	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.89
Time Slice 1/1/2013-3/26/2013 Active Days: 61	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	10.52	77.72	49.02	0.09	21.41	4.08	25.49	4.51	3.75	8.26	14,583.94
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 5/8/2013-7/5/2013 Active Days: 43	16.36	105.68	76.77	**0.09**	23.51	5.78	29.29	4.95	5.32	10.27	**19,664.90**
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 7/8/2013-8/14/2013 Active Days: 28	8.35	36.98	37.98	0.00	2.11	2.67	4.78	0.44	2.46	2.90	6,510.35
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/15/2013-8/16/2013 Active Days: 2	15.56	65.89	**114.69**	0.08	2.47	4.45	6.91	0.57	4.07	4.64	18,193.52
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	28.91	76.71	0.08	0.36	1.77	2.14	0.13	1.61	1.74	11,683.16
Building Off Road Diesel	5.03	19.28	18.90	0.00	0.00	1.34	1.34	0.00	1.23	1.23	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/19/2013-12/31/2013 Active Days: 97	9.71	37.94	86.94	0.08	0.37	2.74	3.11	0.13	2.50	2.63	13,112.55
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	28.91	76.71	0.08	0.36	1.77	2.14	0.13	1.61	1.74	11,683.16
Building Off Road Diesel	5.03	19.28	18.90	0.00	0.00	1.34	1.34	0.00	1.23	1.23	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Time Slice 1/1/2014-4/25/2014 Active Days: 83	9.01	34.93	81.93	0.08	0.37	2.49	2.86	0.13	2.27	2.40	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	116.16	35.02	83.62	0.08	0.38	2.49	2.87	0.14	2.27	2.41	13,327.74
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Coating 04/28/2014-09/29/2014	107.14	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Architectural Coating	107.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Time Slice 9/30/2014-12/22/2014 Active Days: 60	9.01	34.93	81.93	0.08	0.37	2.49	2.86	0.13	2.27	2.40	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

Time Slice 12/23/2014-12/31/2014 Active Days: 7	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Time Slice 1/1/2015-1/7/2015 Active Days: 5	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97
Building 08/15/2013-01/07/2015	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97
Building Off Road Diesel	4.29	16.32	17.92	0.00	0.00	1.11	1.11	0.00	1.03	1.03	3,806.24
Building Vendor Trips	0.49	5.36	5.46	0.02	0.07	0.21	0.28	0.02	0.19	0.22	1,852.88
Building Worker Trips	1.32	2.27	44.00	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,027.85

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Other Material Handling Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Other Material Handling Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase1-2Construction.urb924

Project Name: One Paseo Scenario 2 Phase 1 and 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
2012 TOTALS (lbs/day mitigated)	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
2013 TOTALS (lbs/day unmitigated)	16.36	144.98	114.69	0.09	332.87	7.13	340.00	69.56	6.56	76.12	19,664.90
2013 TOTALS (lbs/day mitigated)	16.36	105.68	114.69	0.09	23.51	5.78	29.29	4.95	5.32	10.27	19,664.90
2014 TOTALS (lbs/day unmitigated)	187.55	52.46	83.62	0.08	0.38	3.19	3.57	0.14	2.91	3.05	13,327.74
2014 TOTALS (lbs/day mitigated)	116.16	35.02	83.62	0.08	0.38	2.49	2.87	0.14	2.27	2.41	13,327.74
2015 TOTALS (lbs/day unmitigated)	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
2015 TOTALS (lbs/day mitigated)	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
Mass Grading 12/17/2012-07/07/2013	8.58	92.01	41.54	0.09	302.86	3.96	306.82	63.29	3.65	66.93	13,154.49
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.90	39.51	21.74	0.00	0.00	1.99	1.99	0.00	1.83	1.83	3,954.75
Mass Grading On Road Diesel	3.63	52.41	18.14	0.08	0.32	1.96	2.28	0.10	1.81	1.91	9,020.85
Mass Grading Worker Trips	0.05	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.89
Time Slice 1/1/2013-3/26/2013 Active Days: 61	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	10.52	98.44	49.02	0.09	302.86	4.86	307.72	63.29	4.47	67.76	14,583.94
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 5/8/2013-7/5/2013 Active Days: 43	16.36	**144.98**	76.77	**0.09**	**332.87**	**7.13**	**340.00**	**69.56**	**6.56**	**76.12**	**19,664.90**
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-07/07/2013	8.02	83.54	38.79	0.09	302.86	3.57	306.43	63.29	3.28	66.57	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	302.53	0.00	302.53	63.18	0.00	63.18	0.00
Mass Grading Off Road Diesel	4.65	37.11	20.95	0.00	0.00	1.84	1.84	0.00	1.69	1.69	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 7/8/2013-8/14/2013 Active Days: 28	8.35	61.44	37.98	0.00	30.02	3.56	33.58	6.27	3.27	9.54	6,510.35
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013- 08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/15/2013-8/16/2013 Active Days: 2	15.56	103.21	**114.69**	0.08	30.38	5.78	36.16	6.40	5.30	11.70	18,193.52
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	41.77	76.71	0.08	0.36	2.22	2.58	0.13	2.02	2.15	11,683.16
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Fine Grading 05/08/2013- 08/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/19/2013-12/31/2013 Active Days: 97	9.71	56.67	86.94	0.08	0.37	3.51	3.88	0.13	3.21	3.34	13,112.55
Asphalt 03/27/2013-12/22/2014	2.50	14.90	10.23	0.00	0.01	1.29	1.29	0.00	1.18	1.19	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	41.77	76.71	0.08	0.36	2.22	2.58	0.13	2.02	2.15	11,683.16
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Time Slice 1/1/2014-4/25/2014 Active Days: 83	9.01	52.37	81.93	0.08	0.37	3.18	3.55	0.13	2.91	3.04	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	**187.55**	52.46	83.62	0.08	0.38	3.19	3.57	0.14	2.91	3.05	13,327.74
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Coating 04/28/2014-09/29/2014	178.54	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Architectural Coating	178.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Time Slice 9/30/2014-12/22/2014 Active Days: 60	9.01	52.37	81.93	0.08	0.37	3.18	3.55	0.13	2.91	3.04	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	14.12	10.07	0.00	0.01	1.21	1.21	0.00	1.11	1.11	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 12/23/2014-12/31/2014 Active Days: 7	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building 08/15/2013-01/07/2015	6.64	38.25	71.86	0.08	0.36	1.97	2.34	0.13	1.80	1.93	11,685.24
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Time Slice 1/1/2015-1/7/2015 Active Days: 5	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
Building 08/15/2013-01/07/2015	6.10	34.83	67.38	0.08	0.36	1.86	2.22	0.13	1.69	1.82	11,686.97
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.49	5.36	5.46	0.02	0.07	0.21	0.28	0.02	0.19	0.22	1,852.88
Building Worker Trips	1.32	2.27	44.00	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,027.85

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

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Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2240.64

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 11.09

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
Mass Grading 12/17/2012-07/07/2013	8.58	76.21	41.54	0.09	21.40	3.46	24.87	4.51	3.19	7.70	13,154.49
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.90	23.71	21.74	0.00	0.00	1.50	1.50	0.00	1.38	1.38	3,954.75
Mass Grading On Road Diesel	3.63	52.41	18.14	0.08	0.32	1.96	2.28	0.10	1.81	1.91	9,020.85
Mass Grading Worker Trips	0.05	0.09	1.65	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.89
Time Slice 1/1/2013-3/26/2013 Active Days: 61	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	10.52	77.72	49.02	0.09	21.41	4.08	25.49	4.51	3.75	8.26	14,583.94
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 5/8/2013-7/5/2013 Active Days: 43	16.36	105.68	76.77	**0.09**	23.51	5.78	29.29	4.95	5.32	10.27	**19,664.90**
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-07/07/2013	8.02	68.70	38.79	0.09	21.40	3.11	24.51	4.51	2.86	7.37	13,154.55
Mass Grading Dust	0.00	0.00	0.00	0.00	21.08	0.00	21.08	4.40	0.00	4.40	0.00
Mass Grading Off Road Diesel	4.65	22.27	20.95	0.00	0.00	1.38	1.38	0.00	1.27	1.27	3,954.75
Mass Grading On Road Diesel	3.32	46.35	16.31	0.08	0.32	1.73	2.04	0.10	1.59	1.69	9,020.85
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 7/8/2013-8/14/2013 Active Days: 28	8.35	36.98	37.98	0.00	2.11	2.67	4.78	0.44	2.46	2.90	6,510.35
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/15/2013-8/16/2013 Active Days: 2	15.56	65.89	**114.69**	0.08	2.47	4.45	6.91	0.57	4.07	4.64	18,193.52
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	28.91	76.71	0.08	0.36	1.77	2.14	0.13	1.61	1.74	11,683.16
Building Off Road Diesel	5.03	19.28	18.90	0.00	0.00	1.34	1.34	0.00	1.23	1.23	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Fine Grading 05/08/2013-08/18/2013	5.84	27.96	27.75	0.00	2.10	1.71	3.80	0.44	1.57	2.01	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.70	1.70	0.00	1.56	1.56	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 8/19/2013-12/31/2013 Active Days: 97	9.71	37.94	86.94	0.08	0.37	2.74	3.11	0.13	2.50	2.63	13,112.55
Asphalt 03/27/2013-12/22/2014	2.50	9.02	10.23	0.00	0.01	0.97	0.97	0.00	0.89	0.89	1,429.39
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.96	0.96	0.00	0.88	0.88	1,272.41
Paving On Road Diesel	0.01	0.15	0.05	0.00	0.00	0.01	0.01	0.00	0.01	0.01	29.15
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-01/07/2015	7.21	28.91	76.71	0.08	0.36	1.77	2.14	0.13	1.61	1.74	11,683.16
Building Off Road Diesel	5.03	19.28	18.90	0.00	0.00	1.34	1.34	0.00	1.23	1.23	3,806.24
Building Vendor Trips	0.59	6.92	6.36	0.02	0.07	0.27	0.34	0.02	0.25	0.27	1,852.55
Building Worker Trips	1.59	2.71	51.46	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,024.38
Time Slice 1/1/2014-4/25/2014 Active Days: 83	9.01	34.93	81.93	0.08	0.37	2.49	2.86	0.13	2.27	2.40	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 4/28/2014-9/29/2014 Active Days: 111	116.16	35.02	83.62	0.08	0.38	2.49	2.87	0.14	2.27	2.41	13,327.74
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Coating 04/28/2014-09/29/2014	107.14	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Architectural Coating	107.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.05	0.09	1.68	0.00	0.01	0.01	0.02	0.00	0.00	0.01	213.08
Time Slice 9/30/2014-12/22/2014 Active Days: 60	9.01	34.93	81.93	0.08	0.37	2.49	2.86	0.13	2.27	2.40	13,114.66
Asphalt 03/27/2013-12/22/2014	2.37	8.55	10.07	0.00	0.01	0.91	0.91	0.00	0.83	0.84	1,429.43
Paving Off-Gas	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.90	0.90	0.00	0.83	0.83	1,272.41
Paving On Road Diesel	0.01	0.13	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.15
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29

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Time Slice 12/23/2014-12/31/2014 Active Days: 7	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building 08/15/2013-01/07/2015	6.64	26.38	71.86	0.08	0.36	1.58	1.94	0.13	1.43	1.56	11,685.24
Building Off Road Diesel	4.66	17.80	18.38	0.00	0.00	1.18	1.18	0.00	1.09	1.09	3,806.24
Building Vendor Trips	0.54	6.10	5.89	0.02	0.07	0.24	0.31	0.02	0.22	0.24	1,852.71
Building Worker Trips	1.45	2.48	47.59	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,026.29
Time Slice 1/1/2015-1/7/2015 Active Days: 5	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97
Building 08/15/2013-01/07/2015	6.10	23.95	67.38	0.08	0.36	1.49	1.85	0.13	1.35	1.48	11,686.97
Building Off Road Diesel	4.29	16.32	17.92	0.00	0.00	1.11	1.11	0.00	1.03	1.03	3,806.24
Building Vendor Trips	0.49	5.36	5.46	0.02	0.07	0.21	0.28	0.02	0.19	0.22	1,852.88
Building Worker Trips	1.32	2.27	44.00	0.06	0.29	0.16	0.46	0.11	0.13	0.24	6,027.85

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Other Material Handling Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Other Material Handling Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase3Construction.urb924

Project Name: One Paseo Scenario 2 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (lbs/day unmitigated)	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
2016 TOTALS (lbs/day mitigated)	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
2017 TOTALS (lbs/day unmitigated)	36.52	70.66	44.39	0.13	293.74	3.05	296.79	61.41	2.80	64.21	17,521.30
2017 TOTALS (lbs/day mitigated)	7.38	60.71	44.39	0.13	20.93	2.68	23.61	4.43	2.46	6.89	17,521.30
2018 TOTALS (lbs/day unmitigated)	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
2018 TOTALS (lbs/day mitigated)	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
2019 TOTALS (lbs/day unmitigated)	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
2019 TOTALS (lbs/day mitigated)	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.13	16.07	10.09	0.00	0.00	0.75	0.75	0.00	0.69	0.69	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	**70.66**	35.57	**0.13**	**293.74**	**3.05**	**296.79**	**61.41**	**2.80**	**64.21**	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016- 01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	26.59	**44.39**	0.05	0.27	1.69	1.97	0.10	1.54	1.64	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	**36.52**	16.17	35.64	0.05	0.26	0.87	1.14	0.09	0.79	0.88	7,030.50
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	33.43	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
Building 10/04/2017-06/11/2019	2.80	14.80	33.30	0.05	0.26	0.78	1.04	0.09	0.70	0.80	6,994.02
Building Off Road Diesel	1.78	9.66	9.01	0.00	0.00	0.52	0.52	0.00	0.48	0.48	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	33.43	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
Building 10/04/2017-06/11/2019	2.56	13.60	31.40	0.05	0.26	0.69	0.95	0.09	0.62	0.72	6,993.78
Building Off Road Diesel	1.62	8.96	8.86	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	33.43	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.13	9.64	10.09	0.00	0.00	0.57	0.57	0.00	0.52	0.52	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	60.71	35.57	**0.13**	20.93	2.68	23.61	4.43	2.46	6.89	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	18.35	**44.39**	0.05	0.27	1.34	1.61	0.10	1.22	1.32	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	4.25	12.00	35.64	0.05	0.26	0.72	0.99	0.09	0.65	0.75	7,030.50
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	1.16	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

Time Slice 1/1/2018-12/31/2018 Active Days: 261	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
Building 10/04/2017-06/11/2019	2.80	10.94	33.30	0.05	0.26	0.65	0.91	0.09	0.58	0.68	6,994.02
Building Off Road Diesel	1.78	5.79	9.01	0.00	0.00	0.39	0.39	0.00	0.36	0.36	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	13.09	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	13.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96
Building 10/04/2017-06/11/2019	2.56	10.01	31.40	0.05	0.26	0.58	0.84	0.09	0.52	0.61	6,993.78
Building Off Road Diesel	1.62	5.37	8.86	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	5.82	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	5.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase3Construction.urb924

Project Name: One Paseo Scenario 2 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (lbs/day unmitigated)	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
2016 TOTALS (lbs/day mitigated)	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
2017 TOTALS (lbs/day unmitigated)	36.52	70.66	44.39	0.13	293.74	3.05	296.79	61.41	2.80	64.21	17,521.30
2017 TOTALS (lbs/day mitigated)	7.38	60.71	44.39	0.13	20.93	2.68	23.61	4.43	2.46	6.89	17,521.30
2018 TOTALS (lbs/day unmitigated)	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
2018 TOTALS (lbs/day mitigated)	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
2019 TOTALS (lbs/day unmitigated)	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
2019 TOTALS (lbs/day mitigated)	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	67.62	28.67	0.13	293.73	2.52	296.25	61.40	2.32	63.72	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.13	16.07	10.09	0.00	0.00	0.75	0.75	0.00	0.69	0.69	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	**70.66**	35.57	**0.13**	**293.74**	**3.05**	**296.79**	**61.41**	**2.80**	**64.21**	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	60.22	26.59	0.13	293.73	2.23	295.96	61.40	2.05	63.45	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	293.24	0.00	293.24	61.24	0.00	61.24	0.00
Mass Grading Off Road Diesel	2.03	14.69	9.80	0.00	0.00	0.68	0.68	0.00	0.62	0.62	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	26.59	**44.39**	0.05	0.27	1.69	1.97	0.10	1.54	1.64	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	10.44	8.97	0.00	0.01	0.82	0.83	0.00	0.75	0.76	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	10.19	7.79	0.00	0.00	0.81	0.81	0.00	0.74	0.74	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	**36.52**	16.17	35.64	0.05	0.26	0.87	1.14	0.09	0.79	0.88	7,030.50
Building 10/04/2017-06/11/2019	3.09	16.15	35.42	0.05	0.26	0.87	1.13	0.09	0.79	0.88	6,994.32
Building Off Road Diesel	1.98	10.41	9.21	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	33.43	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	36.23	14.82	33.51	0.05	0.26	0.78	1.04	0.09	0.70	0.80	7,030.19
Building 10/04/2017-06/11/2019	2.80	14.80	33.30	0.05	0.26	0.78	1.04	0.09	0.70	0.80	6,994.02
Building Off Road Diesel	1.78	9.66	9.01	0.00	0.00	0.52	0.52	0.00	0.48	0.48	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	33.43	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	35.98	13.61	31.59	0.05	0.26	0.69	0.96	0.09	0.62	0.72	7,029.96
Building 10/04/2017-06/11/2019	2.56	13.60	31.40	0.05	0.26	0.69	0.95	0.09	0.62	0.72	6,993.78
Building Off Road Diesel	1.62	8.96	8.86	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	33.43	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	33.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/15/2016-12/30/2016 Active Days: 34	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.98	61.19	28.67	0.13	20.92	2.33	23.25	4.43	2.14	6.57	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.13	9.64	10.09	0.00	0.00	0.57	0.57	0.00	0.52	0.52	2,247.32
Mass Grading On Road Diesel	3.83	51.51	17.97	0.13	0.48	1.76	2.24	0.16	1.62	1.78	13,810.43
Mass Grading Worker Trips	0.02	0.04	0.61	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.77
Time Slice 1/2/2017-1/27/2017 Active Days: 20	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76

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Time Slice 1/30/2017-1/30/2017 Active Days: 1	7.38	60.71	35.57	**0.13**	20.93	2.68	23.61	4.43	2.46	6.89	**17,521.30**
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Mass Grading 11/15/2016-01/30/2017	5.56	54.35	26.59	0.13	20.92	2.06	22.98	4.43	1.89	6.32	16,150.52
Mass Grading Dust	0.00	0.00	0.00	0.00	20.43	0.00	20.43	4.27	0.00	4.27	0.00
Mass Grading Off Road Diesel	2.03	8.81	9.80	0.00	0.00	0.51	0.51	0.00	0.47	0.47	2,247.32
Mass Grading On Road Diesel	3.51	45.50	16.23	0.13	0.48	1.55	2.03	0.16	1.43	1.58	13,810.44
Mass Grading Worker Trips	0.02	0.04	0.56	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.76
Time Slice 1/31/2017-10/3/2017 Active Days: 176	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52

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Time Slice 10/4/2017-10/10/2017 Active Days: 5	4.91	18.35	**44.39**	0.05	0.27	1.34	1.61	0.10	1.22	1.32	8,365.11
Asphalt 01/29/2017-10/10/2017	1.82	6.36	8.97	0.00	0.01	0.62	0.63	0.00	0.57	0.57	1,370.78
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.66	6.11	7.79	0.00	0.00	0.61	0.61	0.00	0.56	0.56	1,131.92
Paving On Road Diesel	0.01	0.18	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	53.35
Paving Worker Trips	0.04	0.07	1.12	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.52
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 10/11/2017-11/28/2017 Active Days: 35	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Time Slice 11/29/2017-12/29/2017 Active Days: 23	4.25	12.00	35.64	0.05	0.26	0.72	0.99	0.09	0.65	0.75	7,030.50
Building 10/04/2017-06/11/2019	3.09	11.99	35.42	0.05	0.26	0.72	0.98	0.09	0.65	0.74	6,994.32
Building Off Road Diesel	1.98	6.24	9.21	0.00	0.00	0.45	0.45	0.00	0.41	0.41	1,621.20
Building Vendor Trips	0.40	4.36	4.15	0.02	0.07	0.17	0.23	0.02	0.15	0.17	1,723.70
Building Worker Trips	0.71	1.38	22.06	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.42
Coating 11/29/2017-06/11/2019	1.16	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18

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Time Slice 1/1/2018-12/31/2018 Active Days: 261	15.89	10.95	33.51	0.05	0.26	0.65	0.91	0.09	0.58	0.68	7,030.19
Building 10/04/2017-06/11/2019	2.80	10.94	33.30	0.05	0.26	0.65	0.91	0.09	0.58	0.68	6,994.02
Building Off Road Diesel	1.78	5.79	9.01	0.00	0.00	0.39	0.39	0.00	0.36	0.36	1,621.20
Building Vendor Trips	0.37	3.88	3.87	0.02	0.07	0.15	0.21	0.02	0.14	0.16	1,723.73
Building Worker Trips	0.65	1.26	20.42	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,649.09
Coating 11/29/2017-06/11/2019	13.09	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Architectural Coating	13.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.18
Time Slice 1/1/2019-6/11/2019 Active Days: 116	8.38	10.03	31.59	0.05	0.26	0.58	0.84	0.09	0.52	0.62	7,029.96
Building 10/04/2017-06/11/2019	2.56	10.01	31.40	0.05	0.26	0.58	0.84	0.09	0.52	0.61	6,993.78
Building Off Road Diesel	1.62	5.37	8.86	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,621.20
Building Vendor Trips	0.34	3.47	3.63	0.02	0.07	0.14	0.20	0.02	0.12	0.15	1,723.75
Building Worker Trips	0.59	1.17	18.92	0.03	0.20	0.11	0.30	0.07	0.09	0.16	3,648.84
Coating 11/29/2017-06/11/2019	5.82	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17
Architectural Coating	5.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.17

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase1-2Construction.urb924

Project Name: One Paseo Scenario 2 Phase 1 and 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.05	0.51	0.23	0.00	1.67	0.02	1.69	0.35	0.02	0.37	72.35
2012 TOTALS (tons/year mitigated)	0.05	0.42	0.23	0.00	0.12	0.02	0.14	0.02	0.02	0.04	72.35
Percent Reduction	0.00	17.18	0.00	0.00	92.93	12.58	91.90	92.88	12.58	88.50	0.00
2013 TOTALS (tons/year unmitigated)	1.36	10.85	8.43	0.01	21.41	0.56	21.97	4.48	0.51	4.99	1,788.07
2013 TOTALS (tons/year mitigated)	1.36	7.96	8.43	0.01	1.53	0.46	1.98	0.32	0.42	0.74	1,788.07
Percent Reduction	0.00	26.69	0.00	0.00	92.86	18.83	90.97	92.74	18.86	85.12	0.00
2014 TOTALS (tons/year unmitigated)	11.08	6.79	10.75	0.01	0.05	0.41	0.46	0.02	0.38	0.39	1,718.29
2014 TOTALS (tons/year mitigated)	7.11	4.53	10.75	0.01	0.05	0.32	0.37	0.02	0.29	0.31	1,718.29
Percent Reduction	35.77	33.24	0.00	0.00	0.00	21.74	19.43	0.00	21.89	20.92	0.00
2015 TOTALS (tons/year unmitigated)	0.02	0.09	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.22
2015 TOTALS (tons/year mitigated)	0.02	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.22
Percent Reduction	0.00	31.24	0.00	0.00	0.00	19.97	16.72	0.00	20.21	18.77	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2012	0.05	0.51	0.23	0.00	1.67	0.02	1.69	0.35	0.02	0.37	72.35
Mass Grading 12/17/2012-07/07/2013	0.05	0.51	0.23	0.00	1.67	0.02	1.69	0.35	0.02	0.37	72.35
Mass Grading Dust	0.00	0.00	0.00	0.00	1.66	0.00	1.66	0.35	0.00	0.35	0.00
Mass Grading Off Road Diesel	0.03	0.22	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	21.75
Mass Grading On Road Diesel	0.02	0.29	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.61
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98

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2013	1.36	10.85	8.43	0.01	21.41	0.56	21.97	4.48	0.51	4.99	1,788.07
Mass Grading 12/17/2012-07/07/2013	0.54	5.60	2.60	0.01	20.29	0.24	20.53	4.24	0.22	4.46	881.35
Mass Grading Dust	0.00	0.00	0.00	0.00	20.27	0.00	20.27	4.23	0.00	4.23	0.00
Mass Grading Off Road Diesel	0.31	2.49	1.40	0.00	0.00	0.12	0.12	0.00	0.11	0.11	264.97
Mass Grading On Road Diesel	0.22	3.11	1.09	0.01	0.02	0.12	0.14	0.01	0.11	0.11	604.40
Mass Grading Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.99
Asphalt 03/27/2013-12/22/2014	0.25	1.49	1.02	0.00	0.00	0.13	0.13	0.00	0.12	0.12	142.94
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.24	1.47	0.91	0.00	0.00	0.13	0.13	0.00	0.12	0.12	127.24
Paving On Road Diesel	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92
Paving Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78
Fine Grading 05/08/2013-08/18/2013	0.21	1.70	1.01	0.00	1.10	0.08	1.18	0.23	0.08	0.31	185.46
Fine Grading Dust	0.00	0.00	0.00	0.00	1.10	0.00	1.10	0.23	0.00	0.23	0.00
Fine Grading Off Road Diesel	0.21	1.70	0.96	0.00	0.00	0.08	0.08	0.00	0.08	0.08	178.92
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.53
Building 08/15/2013-01/07/2015	0.36	2.07	3.80	0.00	0.02	0.11	0.13	0.01	0.10	0.11	578.32
Building Off Road Diesel	0.25	1.59	0.94	0.00	0.00	0.09	0.09	0.00	0.08	0.08	188.41
Building Vendor Trips	0.03	0.34	0.31	0.00	0.00	0.01	0.02	0.00	0.01	0.01	91.70
Building Worker Trips	0.08	0.13	2.55	0.00	0.01	0.01	0.02	0.01	0.01	0.01	298.21

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2014	11.08	6.79	10.75	0.01	0.05	0.41	0.46	0.02	0.38	0.39	1,718.29
Asphalt 03/27/2013-12/22/2014	0.30	1.79	1.28	0.00	0.00	0.15	0.15	0.00	0.14	0.14	181.54
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.29	1.77	1.14	0.00	0.00	0.15	0.15	0.00	0.14	0.14	161.60
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.24
Building 08/15/2013-01/07/2015	0.87	4.99	9.38	0.01	0.05	0.26	0.30	0.02	0.23	0.25	1,524.92
Building Off Road Diesel	0.61	3.87	2.40	0.00	0.00	0.21	0.21	0.00	0.19	0.19	496.71
Building Vendor Trips	0.07	0.80	0.77	0.00	0.01	0.03	0.04	0.00	0.03	0.03	241.78
Building Worker Trips	0.19	0.32	6.21	0.01	0.04	0.02	0.06	0.01	0.02	0.03	786.43
Coating 04/28/2014-09/29/2014	9.91	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.83
Architectural Coating	9.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.83
2015	0.02	0.09	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.22
Building 08/15/2013-01/07/2015	0.02	0.09	0.17	0.00	0.00	0.00	0.01	0.00	0.00	0.00	29.22
Building Off Road Diesel	0.01	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.52
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.63
Building Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.07

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2436.7 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 2240.64

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

Acres to be Paved: 11.09

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

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2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012	0.05	0.42	0.23	0.00	0.12	0.02	0.14	0.02	0.02	0.04	72.35
Mass Grading 12/17/2012-07/07/2013	0.05	0.42	0.23	0.00	0.12	0.02	0.14	0.02	0.02	0.04	72.35
Mass Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	0.03	0.13	0.12	0.00	0.00	0.01	0.01	0.00	0.01	0.01	21.75
Mass Grading On Road Diesel	0.02	0.29	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	49.61
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98

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2013	1.36	7.96	8.43	0.01	1.53	0.46	1.98	0.32	0.42	0.74	1,788.07
Mass Grading 12/17/2012-07/07/2013	0.54	4.60	2.60	0.01	1.43	0.21	1.64	0.30	0.19	0.49	881.35
Mass Grading Dust	0.00	0.00	0.00	0.00	1.41	0.00	1.41	0.29	0.00	0.29	0.00
Mass Grading Off Road Diesel	0.31	1.49	1.40	0.00	0.00	0.09	0.09	0.00	0.09	0.09	264.97
Mass Grading On Road Diesel	0.22	3.11	1.09	0.01	0.02	0.12	0.14	0.01	0.11	0.11	604.40
Mass Grading Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.99
Asphalt 03/27/2013-12/22/2014	0.25	0.90	1.02	0.00	0.00	0.10	0.10	0.00	0.09	0.09	142.94
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.24	0.88	0.91	0.00	0.00	0.10	0.10	0.00	0.09	0.09	127.24
Paving On Road Diesel	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92
Paving Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78
Fine Grading 05/08/2013-08/18/2013	0.21	1.02	1.01	0.00	0.08	0.06	0.14	0.02	0.06	0.07	185.46
Fine Grading Dust	0.00	0.00	0.00	0.00	0.08	0.00	0.08	0.02	0.00	0.02	0.00
Fine Grading Off Road Diesel	0.21	1.02	0.96	0.00	0.00	0.06	0.06	0.00	0.06	0.06	178.92
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.53
Building 08/15/2013-01/07/2015	0.36	1.43	3.80	0.00	0.02	0.09	0.11	0.01	0.08	0.09	578.32
Building Off Road Diesel	0.25	0.95	0.94	0.00	0.00	0.07	0.07	0.00	0.06	0.06	188.41
Building Vendor Trips	0.03	0.34	0.31	0.00	0.00	0.01	0.02	0.00	0.01	0.01	91.70
Building Worker Trips	0.08	0.13	2.55	0.00	0.01	0.01	0.02	0.01	0.01	0.01	298.21

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2014	7.11	4.53	10.75	0.01	0.05	0.32	0.37	0.02	0.29	0.31	1,718.29
Asphalt 03/27/2013-12/22/2014	0.30	1.09	1.28	0.00	0.00	0.12	0.12	0.00	0.11	0.11	181.54
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.29	1.06	1.14	0.00	0.00	0.11	0.11	0.00	0.11	0.11	161.60
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.70
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.24
Building 08/15/2013-01/07/2015	0.87	3.44	9.38	0.01	0.05	0.21	0.25	0.02	0.19	0.20	1,524.92
Building Off Road Diesel	0.61	2.32	2.40	0.00	0.00	0.15	0.15	0.00	0.14	0.14	496.71
Building Vendor Trips	0.07	0.80	0.77	0.00	0.01	0.03	0.04	0.00	0.03	0.03	241.78
Building Worker Trips	0.19	0.32	6.21	0.01	0.04	0.02	0.06	0.01	0.02	0.03	786.43
Coating 04/28/2014-09/29/2014	5.95	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.83
Architectural Coating	5.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.83
2015	0.02	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.22
Building 08/15/2013-01/07/2015	0.02	0.06	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.22
Building Off Road Diesel	0.01	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.52
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.63
Building Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.07

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 8/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

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For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 7/7/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

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PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 12/22/2014 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

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For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 1/7/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Other Material Handling Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Other Material Handling Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

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NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 9/29/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario2Phase3Construction.urb924

Project Name: One Paseo Scenario 2 Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016 TOTALS (tons/year unmitigated)	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
2016 TOTALS (tons/year mitigated)	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Percent Reduction	0.00	9.50	0.00	0.00	92.88	7.49	92.15	92.79	7.49	89.69	0.00
2017 TOTALS (tons/year unmitigated)	0.71	2.09	2.21	0.00	3.09	0.13	3.22	0.65	0.11	0.76	515.06
2017 TOTALS (tons/year mitigated)	0.34	1.53	2.21	0.00	0.23	0.10	0.33	0.05	0.09	0.14	515.06
Percent Reduction	52.55	26.96	0.00	0.00	92.60	19.84	89.76	92.31	19.92	81.41	0.00
2018 TOTALS (tons/year unmitigated)	4.73	1.93	4.37	0.01	0.03	0.10	0.14	0.01	0.09	0.10	917.44
2018 TOTALS (tons/year mitigated)	2.07	1.43	4.37	0.01	0.03	0.08	0.12	0.01	0.08	0.09	917.44
Percent Reduction	56.14	26.07	0.00	0.00	0.00	16.76	12.52	0.00	17.08	15.07	0.00
2019 TOTALS (tons/year unmitigated)	2.09	0.79	1.83	0.00	0.02	0.04	0.06	0.01	0.04	0.04	407.74
2019 TOTALS (tons/year mitigated)	0.49	0.58	1.83	0.00	0.02	0.03	0.05	0.01	0.03	0.04	407.74
Percent Reduction	76.72	26.33	0.00	0.00	0.00	16.22	11.75	0.00	16.57	14.41	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2016	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
Mass Grading 11/15/2016-01/30/2017	0.10	1.15	0.49	0.00	4.99	0.04	5.04	1.04	0.04	1.08	274.56
Mass Grading Dust	0.00	0.00	0.00	0.00	4.99	0.00	4.99	1.04	0.00	1.04	0.00
Mass Grading Off Road Diesel	0.04	0.27	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	38.20
Mass Grading On Road Diesel	0.07	0.88	0.31	0.00	0.01	0.03	0.04	0.00	0.03	0.03	234.78
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58

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2017	0.71	2.09	2.21	0.00	3.09	0.13	3.22	0.65	0.11	0.76	515.06
Mass Grading 11/15/2016-01/30/2017	0.06	0.63	0.28	0.00	3.08	0.02	3.11	0.64	0.02	0.67	169.58
Mass Grading Dust	0.00	0.00	0.00	0.00	3.08	0.00	3.08	0.64	0.00	0.64	0.00
Mass Grading Off Road Diesel	0.02	0.15	0.10	0.00	0.00	0.01	0.01	0.00	0.01	0.01	23.60
Mass Grading On Road Diesel	0.04	0.48	0.17	0.00	0.01	0.02	0.02	0.00	0.01	0.02	145.01
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Asphalt 01/29/2017-10/10/2017	0.17	0.95	0.82	0.00	0.00	0.07	0.08	0.00	0.07	0.07	124.74
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.15	0.93	0.71	0.00	0.00	0.07	0.07	0.00	0.07	0.07	103.00
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.85
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.88
Building 10/04/2017-06/11/2019	0.10	0.51	1.12	0.00	0.01	0.03	0.04	0.00	0.02	0.03	220.32
Building Off Road Diesel	0.06	0.33	0.29	0.00	0.00	0.02	0.02	0.00	0.02	0.02	51.07
Building Vendor Trips	0.01	0.14	0.13	0.00	0.00	0.01	0.01	0.00	0.00	0.01	54.30
Building Worker Trips	0.02	0.04	0.69	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.96
Coating 11/29/2017-06/11/2019	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
Architectural Coating	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42

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2018	4.73	1.93	4.37	0.01	0.03	0.10	0.14	0.01	0.09	0.10	917.44
Building 10/04/2017-06/11/2019	0.37	1.93	4.35	0.01	0.03	0.10	0.14	0.01	0.09	0.10	912.72
Building Off Road Diesel	0.23	1.26	1.18	0.00	0.00	0.07	0.07	0.00	0.06	0.06	211.57
Building Vendor Trips	0.05	0.51	0.51	0.00	0.01	0.02	0.03	0.00	0.02	0.02	224.95
Building Worker Trips	0.08	0.16	2.66	0.00	0.03	0.01	0.04	0.01	0.01	0.02	476.21
Coating 11/29/2017-06/11/2019	4.36	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
Architectural Coating	4.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
2019	2.09	0.79	1.83	0.00	0.02	0.04	0.06	0.01	0.04	0.04	407.74
Building 10/04/2017-06/11/2019	0.15	0.79	1.82	0.00	0.02	0.04	0.06	0.01	0.04	0.04	405.64
Building Off Road Diesel	0.09	0.52	0.51	0.00	0.00	0.03	0.03	0.00	0.02	0.02	94.03
Building Vendor Trips	0.02	0.20	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	99.98
Building Worker Trips	0.03	0.07	1.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	211.63
Coating 11/29/2017-06/11/2019	1.94	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
Architectural Coating	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10

Phase Assumptions

Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2358 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3430.3

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

Acres to be Paved: 8.18

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

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	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2016	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Mass Grading 11/15/2016-01/30/2017	0.10	1.04	0.49	0.00	0.36	0.04	0.40	0.08	0.04	0.11	274.56
Mass Grading Dust	0.00	0.00	0.00	0.00	0.35	0.00	0.35	0.07	0.00	0.07	0.00
Mass Grading Off Road Diesel	0.04	0.16	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	38.20
Mass Grading On Road Diesel	0.07	0.88	0.31	0.00	0.01	0.03	0.04	0.00	0.03	0.03	234.78
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58

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2017	0.34	1.53	2.21	0.00	0.23	0.10	0.33	0.05	0.09	0.14	515.06
Mass Grading 11/15/2016-01/30/2017	0.06	0.57	0.28	0.00	0.22	0.02	0.24	0.05	0.02	0.07	169.58
Mass Grading Dust	0.00	0.00	0.00	0.00	0.21	0.00	0.21	0.04	0.00	0.04	0.00
Mass Grading Off Road Diesel	0.02	0.09	0.10	0.00	0.00	0.01	0.01	0.00	0.00	0.00	23.60
Mass Grading On Road Diesel	0.04	0.48	0.17	0.00	0.01	0.02	0.02	0.00	0.01	0.02	145.01
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Asphalt 01/29/2017-10/10/2017	0.17	0.58	0.82	0.00	0.00	0.06	0.06	0.00	0.05	0.05	124.74
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.15	0.56	0.71	0.00	0.00	0.06	0.06	0.00	0.05	0.05	103.00
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.85
Paving Worker Trips	0.00	0.01	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.88
Building 10/04/2017-06/11/2019	0.10	0.38	1.12	0.00	0.01	0.02	0.03	0.00	0.02	0.02	220.32
Building Off Road Diesel	0.06	0.20	0.29	0.00	0.00	0.01	0.01	0.00	0.01	0.01	51.07
Building Vendor Trips	0.01	0.14	0.13	0.00	0.00	0.01	0.01	0.00	0.00	0.01	54.30
Building Worker Trips	0.02	0.04	0.69	0.00	0.01	0.00	0.01	0.00	0.00	0.00	114.96
Coating 11/29/2017-06/11/2019	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42
Architectural Coating	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42

2018	2.07	1.43	4.37	0.01	0.03	0.08	0.12	0.01	0.08	0.09	917.44
Building 10/04/2017-06/11/2019	0.37	1.43	4.35	0.01	0.03	0.08	0.12	0.01	0.08	0.09	912.72
Building Off Road Diesel	0.23	0.76	1.18	0.00	0.00	0.05	0.05	0.00	0.05	0.05	211.57
Building Vendor Trips	0.05	0.51	0.51	0.00	0.01	0.02	0.03	0.00	0.02	0.02	224.95
Building Worker Trips	0.08	0.16	2.66	0.00	0.03	0.01	0.04	0.01	0.01	0.02	476.21
Coating 11/29/2017-06/11/2019	1.71	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
Architectural Coating	1.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.72
2019	0.49	0.58	1.83	0.00	0.02	0.03	0.05	0.01	0.03	0.04	407.74
Building 10/04/2017-06/11/2019	0.15	0.58	1.82	0.00	0.02	0.03	0.05	0.01	0.03	0.04	405.64
Building Off Road Diesel	0.09	0.31	0.51	0.00	0.00	0.02	0.02	0.00	0.02	0.02	94.03
Building Vendor Trips	0.02	0.20	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	99.98
Building Worker Trips	0.03	0.07	1.10	0.00	0.01	0.01	0.02	0.00	0.01	0.01	211.63
Coating 11/29/2017-06/11/2019	0.34	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10
Architectural Coating	0.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/15/2016 - 1/30/2017 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

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PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 1/29/2017 - 10/10/2017 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Rollers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 10/4/2017 - 6/11/2019 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 11/29/2017 - 6/11/2019 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario3Phase1-2-3Construction.urb924

Project Name: One Paseo Scenario 3 Phase 1, 2 and 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
2012 TOTALS (lbs/day mitigated)	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
2013 TOTALS (lbs/day unmitigated)	28.48	228.69	208.73	0.25	288.81	11.10	299.91	60.46	10.17	70.64	42,330.84
2013 TOTALS (lbs/day mitigated)	28.48	172.39	208.73	0.25	21.13	7.88	29.01	4.56	7.21	11.77	42,330.84
2014 TOTALS (lbs/day unmitigated)	95.01	60.10	120.08	0.13	0.64	3.53	4.16	0.23	3.21	3.44	19,037.50
2014 TOTALS (lbs/day mitigated)	33.52	44.76	120.08	0.13	0.64	2.22	2.86	0.23	2.01	2.24	19,037.50
2015 TOTALS (lbs/day unmitigated)	94.19	54.91	112.56	0.13	0.64	3.30	3.93	0.23	3.00	3.23	19,040.48
2015 TOTALS (lbs/day mitigated)	37.47	40.70	112.56	0.13	0.64	2.08	2.72	0.23	1.88	2.10	19,040.48

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
Mass Grading 12/17/2012-10/17/2013	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.97	56.77	30.37	0.00	0.00	2.80	2.80	0.00	2.58	2.58	5,715.36
Mass Grading On Road Diesel	4.96	71.73	24.83	0.11	0.43	2.69	3.12	0.14	2.47	2.62	12,345.69
Mass Grading Worker Trips	0.07	0.13	2.36	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.56
Time Slice 1/1/2013-3/26/2013 Active Days: 61	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	13.80	131.85	63.94	0.12	258.18	6.24	264.41	53.97	5.74	59.71	19,769.46
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012- 10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 5/8/2013-8/14/2013 Active Days: 71	19.64	178.39	91.69	0.12	288.19	8.51	296.69	60.24	7.82	68.07	24,850.43
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 8/15/2013-10/17/2013 Active Days: 46	28.48	**228.69**	**208.73**	**0.25**	288.81	**11.10**	299.91	60.46	**10.17**	70.64	**42,330.84**
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 10/18/2013-10/18/2013 Active Days: 1	17.25	111.86	155.06	0.13	30.64	6.15	36.79	6.49	5.63	12.12	24,014.14
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 10/21/2013-12/31/2013 Active Days: 52	11.41	65.32	127.31	0.13	0.63	3.88	4.51	0.23	3.54	3.76	18,933.18
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Time Slice 1/1/2014-4/25/2014 Active Days: 83	10.56	60.06	119.28	0.13	0.63	3.52	4.16	0.23	3.21	3.43	18,936.71
Asphalt 03/27/2013-02/27/2015	2.43	14.23	10.11	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	45.83	109.17	0.13	0.62	2.31	2.94	0.22	2.09	2.32	17,483.91
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74

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Time Slice 4/28/2014-12/31/2014 Active Days: 178	95.01	60.10	120.08	0.13	0.64	3.53	4.16	0.23	3.21	3.44	19,037.50
Asphalt 03/27/2013-02/27/2015	2.43	14.23	10.11	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	45.83	109.17	0.13	0.62	2.31	2.94	0.22	2.09	2.32	17,483.91
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74
Coating 04/28/2014-10/28/2015	84.45	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79

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Time Slice 1/1/2015-2/27/2015 Active Days: 42	94.19	54.91	112.56	0.13	0.64	3.30	3.93	0.23	3.00	3.23	19,040.48
Asphalt 03/27/2013-02/27/2015	2.28	13.33	9.94	0.00	0.01	1.12	1.13	0.00	1.03	1.03	1,452.84
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	13.07	8.93	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,272.41
Paving On Road Diesel	0.02	0.21	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	0.93	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.90
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	84.45	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Time Slice 3/2/2015-10/28/2015 Active Days: 173	91.91	41.59	102.62	0.13	0.63	2.18	2.81	0.22	1.97	2.19	17,587.64
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	84.45	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82

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Time Slice 10/29/2015-12/11/2015 Active Days: 32	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2057 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3066.48

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

3 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

Acres to be Paved: 22.14

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
Mass Grading 12/17/2012-10/17/2013	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.97	34.06	30.37	0.00	0.00	2.10	2.10	0.00	1.93	1.93	5,715.36
Mass Grading On Road Diesel	4.96	71.73	24.83	0.11	0.43	2.69	3.12	0.14	2.47	2.62	12,345.69
Mass Grading Worker Trips	0.07	0.13	2.36	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.56
Time Slice 1/1/2013-3/26/2013 Active Days: 61	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	13.80	104.66	63.94	0.12	18.41	4.95	23.36	3.90	4.56	8.45	19,769.46
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 5/8/2013-8/14/2013 Active Days: 71	19.64	132.62	91.69	0.12	20.51	6.09	26.60	4.34	5.60	9.94	24,850.43
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 8/15/2013-10/17/2013 Active Days: 46	28.48	172.39	**208.73**	**0.25**	21.13	7.88	29.01	4.56	7.21	11.77	**42,330.84**
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 10/18/2013-10/18/2013 Active Days: 1	17.25	76.88	155.06	0.13	2.73	3.58	6.31	0.66	3.26	3.92	24,014.14
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 10/21/2013-12/31/2013 Active Days: 52	11.41	48.92	127.31	0.13	0.63	2.44	3.07	0.23	2.21	2.43	18,933.18
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Time Slice 1/1/2014-4/25/2014 Active Days: 83	10.56	44.72	119.28	0.13	0.63	2.22	2.85	0.23	2.01	2.23	18,936.71
Asphalt 03/27/2013-02/27/2015	2.43	8.65	10.11	0.00	0.01	0.61	0.62	0.00	0.56	0.57	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	36.07	109.17	0.13	0.62	1.61	2.23	0.22	1.44	1.67	17,483.91
Building Off Road Diesel	4.66	19.91	18.38	0.00	0.00	0.87	0.87	0.00	0.80	0.80	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74

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Time Slice 4/28/2014-12/31/2014 Active Days: 178	33.52	44.76	120.08	0.13	0.64	2.22	2.86	0.23	2.01	2.24	19,037.50
Asphalt 03/27/2013-02/27/2015	2.43	8.65	10.11	0.00	0.01	0.61	0.62	0.00	0.56	0.57	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	36.07	109.17	0.13	0.62	1.61	2.23	0.22	1.44	1.67	17,483.91
Building Off Road Diesel	4.66	19.91	18.38	0.00	0.00	0.87	0.87	0.00	0.80	0.80	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74
Coating 04/28/2014-10/28/2015	22.97	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79
Architectural Coating	22.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79

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Time Slice 1/1/2015-2/27/2015 Active Days: 42	37.47	40.70	112.56	0.13	0.64	2.08	2.72	0.23	1.88	2.10	19,040.48
Asphalt 03/27/2013-02/27/2015	2.28	8.10	9.94	0.00	0.01	0.57	0.57	0.00	0.52	0.52	1,452.84
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	7.84	8.93	0.00	0.00	0.55	0.55	0.00	0.51	0.51	1,272.41
Paving On Road Diesel	0.02	0.21	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	0.93	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.90
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	27.74	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	27.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Time Slice 3/2/2015-10/28/2015 Active Days: 173	35.19	32.60	102.62	0.13	0.63	1.51	2.14	0.22	1.36	1.58	17,587.64
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	27.74	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	27.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82

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Time Slice 10/29/2015-12/11/2015 Active Days: 32	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

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PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

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PM10: 50% PM25: 50%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario3Phase1-2-3Construction.urb924

Project Name: One Paseo Scenario 3 Phase 1, 2 and 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (lbs/day unmitigated)	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
2012 TOTALS (lbs/day mitigated)	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
2013 TOTALS (lbs/day unmitigated)	28.48	228.69	208.73	0.25	288.81	11.10	299.91	60.46	10.17	70.64	42,330.84
2013 TOTALS (lbs/day mitigated)	28.48	172.39	208.73	0.25	21.13	7.88	29.01	4.56	7.21	11.77	42,330.84
2014 TOTALS (lbs/day unmitigated)	95.01	60.10	120.08	0.13	0.64	3.53	4.16	0.23	3.21	3.44	19,037.50
2014 TOTALS (lbs/day mitigated)	33.52	44.76	120.08	0.13	0.64	2.22	2.86	0.23	2.01	2.24	19,037.50
2015 TOTALS (lbs/day unmitigated)	94.19	54.91	112.56	0.13	0.64	3.30	3.93	0.23	3.00	3.23	19,040.48
2015 TOTALS (lbs/day mitigated)	37.47	40.70	112.56	0.13	0.64	2.08	2.72	0.23	1.88	2.10	19,040.48

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
Mass Grading 12/17/2012-10/17/2013	12.01	128.63	57.56	0.12	258.17	5.49	263.67	53.97	5.05	59.02	18,316.61
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.97	56.77	30.37	0.00	0.00	2.80	2.80	0.00	2.58	2.58	5,715.36
Mass Grading On Road Diesel	4.96	71.73	24.83	0.11	0.43	2.69	3.12	0.14	2.47	2.62	12,345.69
Mass Grading Worker Trips	0.07	0.13	2.36	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.56
Time Slice 1/1/2013-3/26/2013 Active Days: 61	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	13.80	131.85	63.94	0.12	258.18	6.24	264.41	53.97	5.74	59.71	19,769.46
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 5/8/2013-8/14/2013 Active Days: 71	19.64	178.39	91.69	0.12	288.19	8.51	296.69	60.24	7.82	68.07	24,850.43
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 8/15/2013-10/17/2013 Active Days: 46	28.48	**228.69**	**208.73**	**0.25**	288.81	**11.10**	299.91	60.46	**10.17**	70.64	**42,330.84**
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	116.83	53.67	0.12	258.17	4.94	263.11	53.97	4.55	58.52	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	257.73	0.00	257.73	53.82	0.00	53.82	0.00
Mass Grading Off Road Diesel	6.63	53.29	29.16	0.00	0.00	2.57	2.57	0.00	2.37	2.37	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 10/18/2013-10/18/2013 Active Days: 1	17.25	111.86	155.06	0.13	30.64	6.15	36.79	6.49	5.63	12.12	24,014.14
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	46.54	27.75	0.00	30.01	2.27	32.28	6.27	2.09	8.36	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Fine Grading Off Road Diesel	5.80	46.46	26.22	0.00	0.00	2.27	2.27	0.00	2.09	2.09	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 10/21/2013-12/31/2013 Active Days: 52	11.41	65.32	127.31	0.13	0.63	3.88	4.51	0.23	3.54	3.76	18,933.18
Asphalt 03/27/2013-02/27/2015	2.56	15.02	10.28	0.00	0.01	1.29	1.30	0.00	1.19	1.19	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	14.70	9.09	0.00	0.00	1.28	1.28	0.00	1.18	1.18	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	50.30	117.04	0.13	0.62	2.59	3.21	0.22	2.35	2.57	17,480.41
Building Off Road Diesel	5.03	32.13	18.90	0.00	0.00	1.79	1.79	0.00	1.64	1.64	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Time Slice 1/1/2014-4/25/2014 Active Days: 83	10.56	60.06	119.28	0.13	0.63	3.52	4.16	0.23	3.21	3.43	18,936.71
Asphalt 03/27/2013-02/27/2015	2.43	14.23	10.11	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	45.83	109.17	0.13	0.62	2.31	2.94	0.22	2.09	2.32	17,483.91
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74

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Time Slice 4/28/2014-12/31/2014 Active Days: 178	95.01	60.10	120.08	0.13	0.64	3.53	4.16	0.23	3.21	3.44	19,037.50
Asphalt 03/27/2013-02/27/2015	2.43	14.23	10.11	0.00	0.01	1.21	1.22	0.00	1.11	1.12	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	13.94	9.01	0.00	0.00	1.20	1.20	0.00	1.10	1.10	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	45.83	109.17	0.13	0.62	2.31	2.94	0.22	2.09	2.32	17,483.91
Building Off Road Diesel	4.66	29.67	18.38	0.00	0.00	1.57	1.57	0.00	1.45	1.45	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74
Coating 04/28/2014-10/28/2015	84.45	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79

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Time Slice 1/1/2015-2/27/2015 Active Days: 42	94.19	54.91	112.56	0.13	0.64	3.30	3.93	0.23	3.00	3.23	19,040.48
Asphalt 03/27/2013-02/27/2015	2.28	13.33	9.94	0.00	0.01	1.12	1.13	0.00	1.03	1.03	1,452.84
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	13.07	8.93	0.00	0.00	1.11	1.11	0.00	1.02	1.02	1,272.41
Paving On Road Diesel	0.02	0.21	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	0.93	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.90
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	84.45	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Time Slice 3/2/2015-10/28/2015 Active Days: 173	91.91	41.59	102.62	0.13	0.63	2.18	2.81	0.22	1.97	2.19	17,587.64
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	84.45	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	84.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82

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Time Slice 10/29/2015-12/11/2015 Active Days: 32	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building 08/15/2013-12/11/2015	7.46	41.55	101.88	0.13	0.62	2.17	2.80	0.22	1.97	2.19	17,486.83
Building Off Road Diesel	4.29	27.20	17.92	0.00	0.00	1.49	1.49	0.00	1.37	1.37	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2057 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3066.48

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

3 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

Acres to be Paved: 22.14

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

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CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 12/17/2012-12/31/2012 Active Days: 11	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
Mass Grading 12/17/2012-10/17/2013	12.01	105.92	57.56	0.12	18.40	4.79	23.20	3.90	4.41	8.31	18,316.61
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.97	34.06	30.37	0.00	0.00	2.10	2.10	0.00	1.93	1.93	5,715.36
Mass Grading On Road Diesel	4.96	71.73	24.83	0.11	0.43	2.69	3.12	0.14	2.47	2.62	12,345.69
Mass Grading Worker Trips	0.07	0.13	2.36	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.56
Time Slice 1/1/2013-3/26/2013 Active Days: 61	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 3/27/2013-5/7/2013 Active Days: 30	13.80	104.66	63.94	0.12	18.41	4.95	23.36	3.90	4.56	8.45	19,769.46
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Mass Grading 12/17/2012- 10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 5/8/2013-8/14/2013 Active Days: 71	19.64	132.62	91.69	0.12	20.51	6.09	26.60	4.34	5.60	9.94	24,850.43
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 8/15/2013-10/17/2013 Active Days: 46	28.48	172.39	**208.73**	**0.25**	21.13	7.88	29.01	4.56	7.21	11.77	**42,330.84**
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95
Mass Grading 12/17/2012-10/17/2013	11.23	95.52	53.67	0.12	18.40	4.30	22.70	3.90	3.96	7.85	18,316.70
Mass Grading Dust	0.00	0.00	0.00	0.00	17.96	0.00	17.96	3.75	0.00	3.75	0.00
Mass Grading Off Road Diesel	6.63	31.97	29.16	0.00	0.00	1.93	1.93	0.00	1.78	1.78	5,715.36
Mass Grading On Road Diesel	4.54	63.43	22.32	0.11	0.43	2.36	2.80	0.14	2.17	2.32	12,345.69
Mass Grading Worker Trips	0.07	0.11	2.18	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.65

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Time Slice 10/18/2013-10/18/2013 Active Days: 1	17.25	76.88	155.06	0.13	2.73	3.58	6.31	0.66	3.26	3.92	24,014.14
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Fine Grading 05/08/2013-10/18/2013	5.84	27.96	27.75	0.00	2.10	1.14	3.24	0.44	1.05	1.49	5,080.97
Fine Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Fine Grading Off Road Diesel	5.80	27.88	26.22	0.00	0.00	1.13	1.13	0.00	1.04	1.04	4,902.01
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	178.95

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Time Slice 10/21/2013-12/31/2013 Active Days: 52	11.41	48.92	127.31	0.13	0.63	2.44	3.07	0.23	2.21	2.43	18,933.18
Asphalt 03/27/2013-02/27/2015	2.56	9.14	10.28	0.00	0.01	0.65	0.66	0.00	0.60	0.60	1,452.77
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.40	8.82	9.09	0.00	0.00	0.64	0.64	0.00	0.59	0.59	1,272.41
Paving On Road Diesel	0.02	0.27	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.06	1.09	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.82
Building 08/15/2013-12/11/2015	8.84	39.77	117.04	0.13	0.62	1.79	2.41	0.22	1.61	1.83	17,480.41
Building Off Road Diesel	5.03	21.61	18.90	0.00	0.00	0.98	0.98	0.00	0.90	0.90	3,806.24
Building Vendor Trips	1.16	13.65	12.32	0.03	0.13	0.53	0.67	0.05	0.49	0.53	3,626.63
Building Worker Trips	2.66	4.52	85.82	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,047.54
Time Slice 1/1/2014-4/25/2014 Active Days: 83	10.56	44.72	119.28	0.13	0.63	2.22	2.85	0.23	2.01	2.23	18,936.71
Asphalt 03/27/2013-02/27/2015	2.43	8.65	10.11	0.00	0.01	0.61	0.62	0.00	0.56	0.57	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	36.07	109.17	0.13	0.62	1.61	2.23	0.22	1.44	1.67	17,483.91
Building Off Road Diesel	4.66	19.91	18.38	0.00	0.00	0.87	0.87	0.00	0.80	0.80	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74

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Time Slice 4/28/2014-12/31/2014 Active Days: 178	33.52	44.76	120.08	0.13	0.64	2.22	2.86	0.23	2.01	2.24	19,037.50
Asphalt 03/27/2013-02/27/2015	2.43	8.65	10.11	0.00	0.01	0.61	0.62	0.00	0.56	0.57	1,452.81
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.27	8.36	9.01	0.00	0.00	0.60	0.60	0.00	0.55	0.55	1,272.41
Paving On Road Diesel	0.02	0.24	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	1.01	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.87
Building 08/15/2013-12/11/2015	8.13	36.07	109.17	0.13	0.62	1.61	2.23	0.22	1.44	1.67	17,483.91
Building Off Road Diesel	4.66	19.91	18.38	0.00	0.00	0.87	0.87	0.00	0.80	0.80	3,806.24
Building Vendor Trips	1.06	12.02	11.42	0.03	0.13	0.47	0.61	0.05	0.43	0.48	3,626.93
Building Worker Trips	2.42	4.14	79.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,050.74
Coating 04/28/2014-10/28/2015	22.97	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79
Architectural Coating	22.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.80	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.79

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Time Slice 1/1/2015-2/27/2015 Active Days: 42	37.47	40.70	112.56	0.13	0.64	2.08	2.72	0.23	1.88	2.10	19,040.48
Asphalt 03/27/2013-02/27/2015	2.28	8.10	9.94	0.00	0.01	0.57	0.57	0.00	0.52	0.52	1,452.84
Paving Off-Gas	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.12	7.84	8.93	0.00	0.00	0.55	0.55	0.00	0.51	0.51	1,272.41
Paving On Road Diesel	0.02	0.21	0.08	0.00	0.00	0.01	0.01	0.00	0.01	0.01	52.53
Paving Worker Trips	0.03	0.05	0.93	0.00	0.01	0.00	0.01	0.00	0.00	0.01	127.90
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	27.74	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	27.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Time Slice 3/2/2015-10/28/2015 Active Days: 173	35.19	32.60	102.62	0.13	0.63	1.51	2.14	0.22	1.36	1.58	17,587.64
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33
Coating 04/28/2014-10/28/2015	27.74	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82
Architectural Coating	27.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.02	0.04	0.74	0.00	0.00	0.00	0.01	0.00	0.00	0.00	100.82

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Time Slice 10/29/2015-12/11/2015 Active Days: 32	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building 08/15/2013-12/11/2015	7.46	32.56	101.88	0.13	0.62	1.51	2.13	0.22	1.36	1.58	17,486.83
Building Off Road Diesel	4.29	18.22	17.92	0.00	0.00	0.82	0.82	0.00	0.76	0.76	3,806.24
Building Vendor Trips	0.96	10.56	10.58	0.03	0.13	0.42	0.55	0.05	0.38	0.43	3,627.25
Building Worker Trips	2.20	3.78	73.38	0.10	0.49	0.27	0.76	0.18	0.22	0.39	10,053.33

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

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PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

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PM10: 50% PM25: 50%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOScenario3Phase1-2-3Construction.urb924

Project Name: One Paseo Scenario 3 Phase 1, 2 and 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012 TOTALS (tons/year unmitigated)	0.07	0.71	0.32	0.00	1.42	0.03	1.45	0.30	0.03	0.32	100.74
2012 TOTALS (tons/year mitigated)	0.07	0.58	0.32	0.00	0.10	0.03	0.13	0.02	0.02	0.05	100.74
Percent Reduction	0.00	17.65	0.00	0.00	92.87	12.74	91.20	92.78	12.74	85.93	0.00
2013 TOTALS (tons/year unmitigated)	2.21	18.89	14.04	0.02	28.65	0.91	29.56	5.99	0.83	6.83	3,215.27
2013 TOTALS (tons/year mitigated)	2.21	14.47	14.04	0.02	2.07	0.67	2.74	0.44	0.61	1.06	3,215.27
Percent Reduction	0.00	23.41	0.00	0.00	92.78	26.23	90.74	92.62	26.29	84.54	0.00
2014 TOTALS (tons/year unmitigated)	8.89	7.84	15.64	0.02	0.08	0.46	0.54	0.03	0.42	0.45	2,480.21
2014 TOTALS (tons/year mitigated)	3.42	5.84	15.64	0.02	0.08	0.29	0.37	0.03	0.26	0.29	2,480.21
Percent Reduction	61.53	25.53	0.00	0.00	0.00	37.05	31.39	0.00	37.45	34.98	0.00
2015 TOTALS (tons/year unmitigated)	10.05	5.42	12.87	0.02	0.08	0.29	0.37	0.03	0.26	0.29	2,200.97
2015 TOTALS (tons/year mitigated)	3.95	4.20	12.87	0.02	0.08	0.20	0.28	0.03	0.18	0.21	2,200.97
Percent Reduction	60.68	22.52	0.00	0.00	0.00	32.03	25.29	0.00	32.54	29.45	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2012	0.07	0.71	0.32	0.00	1.42	0.03	1.45	0.30	0.03	0.32	100.74
Mass Grading 12/17/2012-10/17/2013	0.07	0.71	0.32	0.00	1.42	0.03	1.45	0.30	0.03	0.32	100.74
Mass Grading Dust	0.00	0.00	0.00	0.00	1.42	0.00	1.42	0.30	0.00	0.30	0.00
Mass Grading Off Road Diesel	0.04	0.31	0.17	0.00	0.00	0.02	0.02	0.00	0.01	0.01	31.43
Mass Grading On Road Diesel	0.03	0.39	0.14	0.00	0.00	0.01	0.02	0.00	0.01	0.01	67.90
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41

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2013	2.21	18.89	14.04	0.02	28.65	0.91	29.56	5.99	0.83	6.83	3,215.27
Mass Grading 12/17/2012-10/17/2013	1.17	12.15	5.58	0.01	26.85	0.51	27.36	5.61	0.47	6.09	1,904.94
Mass Grading Dust	0.00	0.00	0.00	0.00	26.80	0.00	26.80	5.60	0.00	5.60	0.00
Mass Grading Off Road Diesel	0.69	5.54	3.03	0.00	0.00	0.27	0.27	0.00	0.25	0.25	594.40
Mass Grading On Road Diesel	0.47	6.60	2.32	0.01	0.04	0.25	0.29	0.01	0.23	0.24	1,283.95
Mass Grading Worker Trips	0.01	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.59
Asphalt 03/27/2013-02/27/2015	0.26	1.50	1.03	0.00	0.00	0.13	0.13	0.00	0.12	0.12	145.28
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.24	1.47	0.91	0.00	0.00	0.13	0.13	0.00	0.12	0.12	127.24
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.25
Paving Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78
Fine Grading 05/08/2013-10/18/2013	0.34	2.75	1.64	0.00	1.77	0.13	1.90	0.37	0.12	0.49	299.78
Fine Grading Dust	0.00	0.00	0.00	0.00	1.77	0.00	1.77	0.37	0.00	0.37	0.00
Fine Grading Off Road Diesel	0.34	2.74	1.55	0.00	0.00	0.13	0.13	0.00	0.12	0.12	289.22
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.56
Building 08/15/2013-12/11/2015	0.44	2.49	5.79	0.01	0.03	0.13	0.16	0.01	0.12	0.13	865.28
Building Off Road Diesel	0.25	1.59	0.94	0.00	0.00	0.09	0.09	0.00	0.08	0.08	188.41
Building Vendor Trips	0.06	0.68	0.61	0.00	0.01	0.03	0.03	0.00	0.02	0.03	179.52
Building Worker Trips	0.13	0.22	4.25	0.00	0.02	0.01	0.04	0.01	0.01	0.02	497.35

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2014	8.89	7.84	15.64	0.02	0.08	0.46	0.54	0.03	0.42	0.45	2,480.21
Asphalt 03/27/2013-02/27/2015	0.32	1.86	1.32	0.00	0.00	0.16	0.16	0.00	0.15	0.15	189.59
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.30	1.82	1.18	0.00	0.00	0.16	0.16	0.00	0.14	0.14	166.05
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.86
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.69
Building 08/15/2013-12/11/2015	1.06	5.98	14.25	0.02	0.08	0.30	0.38	0.03	0.27	0.30	2,281.65
Building Off Road Diesel	0.61	3.87	2.40	0.00	0.00	0.21	0.21	0.00	0.19	0.19	496.71
Building Vendor Trips	0.14	1.57	1.49	0.00	0.02	0.06	0.08	0.01	0.06	0.06	473.31
Building Worker Trips	0.32	0.54	10.36	0.01	0.06	0.04	0.10	0.02	0.03	0.05	1,311.62
Coating 04/28/2014-10/28/2015	7.52	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.97
Architectural Coating	7.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.97

2015	10.05	5.42	12.87	0.02	0.08	0.29	0.37	0.03	0.26	0.29	2,200.97
Asphalt 03/27/2013-02/27/2015	0.05	0.28	0.21	0.00	0.00	0.02	0.02	0.00	0.02	0.02	30.51
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.04	0.27	0.19	0.00	0.00	0.02	0.02	0.00	0.02	0.02	26.72
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69
Building 08/15/2013-12/11/2015	0.92	5.13	12.58	0.02	0.08	0.27	0.35	0.03	0.24	0.27	2,159.62
Building Off Road Diesel	0.53	3.36	2.21	0.00	0.00	0.18	0.18	0.00	0.17	0.17	470.07
Building Vendor Trips	0.12	1.30	1.31	0.00	0.02	0.05	0.07	0.01	0.05	0.05	447.97
Building Worker Trips	0.27	0.47	9.06	0.01	0.06	0.03	0.09	0.02	0.03	0.05	1,241.59
Coating 04/28/2014-10/28/2015	9.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84
Architectural Coating	9.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84

Phase Assumptions

Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

2 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

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Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Low

Onsite Cut/Fill: 2057 cubic yards/day; Offsite Cut/Fill: 0 cubic yards/day

On Road Truck Travel (VMT): 3066.48

Off-Road Equipment:

2 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

3 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

3 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

Acres to be Paved: 22.14

Off-Road Equipment:

1 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

2 Rollers (95 hp) operating at a 0.56 load factor for 6 hours per day

Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

Off-Road Equipment:

1 Aerial Lifts (60 hp) operating at a 0.46 load factor for 8 hours per day

2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day

2 Cranes (399 hp) operating at a 0.43 load factor for 7 hours per day

4 Forklifts (145 hp) operating at a 0.3 load factor for 7 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 8 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

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Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2012	0.07	0.58	0.32	0.00	0.10	0.03	0.13	0.02	0.02	0.05	100.74
Mass Grading 12/17/2012-10/17/2013	0.07	0.58	0.32	0.00	0.10	0.03	0.13	0.02	0.02	0.05	100.74
Mass Grading Dust	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	0.04	0.19	0.17	0.00	0.00	0.01	0.01	0.00	0.01	0.01	31.43
Mass Grading On Road Diesel	0.03	0.39	0.14	0.00	0.00	0.01	0.02	0.00	0.01	0.01	67.90
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.41

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2013	2.21	14.47	14.04	0.02	2.07	0.67	2.74	0.44	0.61	1.06	3,215.27
Mass Grading 12/17/2012-10/17/2013	1.17	9.93	5.58	0.01	1.91	0.45	2.36	0.41	0.41	0.82	1,904.94
Mass Grading Dust	0.00	0.00	0.00	0.00	1.87	0.00	1.87	0.39	0.00	0.39	0.00
Mass Grading Off Road Diesel	0.69	3.32	3.03	0.00	0.00	0.20	0.20	0.00	0.18	0.18	594.40
Mass Grading On Road Diesel	0.47	6.60	2.32	0.01	0.04	0.25	0.29	0.01	0.23	0.24	1,283.95
Mass Grading Worker Trips	0.01	0.01	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.59
Asphalt 03/27/2013-02/27/2015	0.26	0.91	1.03	0.00	0.00	0.07	0.07	0.00	0.06	0.06	145.28
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.24	0.88	0.91	0.00	0.00	0.06	0.06	0.00	0.06	0.06	127.24
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.25
Paving Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.78
Fine Grading 05/08/2013-10/18/2013	0.34	1.65	1.64	0.00	0.12	0.07	0.19	0.03	0.06	0.09	299.78
Fine Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.03	0.00	0.03	0.00
Fine Grading Off Road Diesel	0.34	1.64	1.55	0.00	0.00	0.07	0.07	0.00	0.06	0.06	289.22
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.56
Building 08/15/2013-12/11/2015	0.44	1.97	5.79	0.01	0.03	0.09	0.12	0.01	0.08	0.09	865.28
Building Off Road Diesel	0.25	1.07	0.94	0.00	0.00	0.05	0.05	0.00	0.04	0.04	188.41
Building Vendor Trips	0.06	0.68	0.61	0.00	0.01	0.03	0.03	0.00	0.02	0.03	179.52
Building Worker Trips	0.13	0.22	4.25	0.00	0.02	0.01	0.04	0.01	0.01	0.02	497.35

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2014	3.42	5.84	15.64	0.02	0.08	0.29	0.37	0.03	0.26	0.29	2,480.21
Asphalt 03/27/2013-02/27/2015	0.32	1.13	1.32	0.00	0.00	0.08	0.08	0.00	0.07	0.07	189.59
Paving Off-Gas	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.30	1.09	1.18	0.00	0.00	0.08	0.08	0.00	0.07	0.07	166.05
Paving On Road Diesel	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.86
Paving Worker Trips	0.00	0.01	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.69
Building 08/15/2013-12/11/2015	1.06	4.71	14.25	0.02	0.08	0.21	0.29	0.03	0.19	0.22	2,281.65
Building Off Road Diesel	0.61	2.60	2.40	0.00	0.00	0.11	0.11	0.00	0.10	0.10	496.71
Building Vendor Trips	0.14	1.57	1.49	0.00	0.02	0.06	0.08	0.01	0.06	0.06	473.31
Building Worker Trips	0.32	0.54	10.36	0.01	0.06	0.04	0.10	0.02	0.03	0.05	1,311.62
Coating 04/28/2014-10/28/2015	2.04	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.97
Architectural Coating	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.97

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2015	3.95	4.20	12.87	0.02	0.08	0.20	0.28	0.03	0.18	0.21	2,200.97
Asphalt 03/27/2013-02/27/2015	0.05	0.17	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	30.51
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.04	0.16	0.19	0.00	0.00	0.01	0.01	0.00	0.01	0.01	26.72
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.69
Building 08/15/2013-12/11/2015	0.92	4.02	12.58	0.02	0.08	0.19	0.26	0.03	0.17	0.19	2,159.62
Building Off Road Diesel	0.53	2.25	2.21	0.00	0.00	0.10	0.10	0.00	0.09	0.09	470.07
Building Vendor Trips	0.12	1.30	1.31	0.00	0.02	0.05	0.07	0.01	0.05	0.05	447.97
Building Worker Trips	0.27	0.47	9.06	0.01	0.06	0.03	0.09	0.02	0.03	0.05	1,241.59
Coating 04/28/2014-10/28/2015	2.98	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84
Architectural Coating	2.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.84

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 5/8/2013 - 10/18/2013 - Grading - Blocks A, B, C

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

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For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Mass Grading 12/17/2012 - 10/17/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Graders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Water Trucks, the Diesel Particulate Filter (DPF) 3rd Tier mitigation reduces emissions by:

PM10: 25% PM25: 25%

For Water Trucks, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Paving 3/27/2013 - 2/27/2015 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Pavers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Paving Equipment, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Paving Equipment, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Rollers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Rollers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

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The following mitigation measures apply to Phase: Building Construction 8/15/2013 - 12/11/2015 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cranes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Forklifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Forklifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Generator Sets, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Generator Sets, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Welders, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Welders, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

For Aerial Lifts, the Diesel Particulate Filter (DPF) 2nd Tier mitigation reduces emissions by:

PM10: 50% PM25: 50%

For Aerial Lifts, the Diesel Oxidation Catalyst 40% mitigation reduces emissions by:

NOX: 40%

The following mitigation measures apply to Phase: Architectural Coating 4/28/2014 - 10/28/2015 - Default Architectural Coating Description

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For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 Operation.urb924

Project Name: Community Plaza District Phase 1

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	5.50	6.30	11.41	0.00	0.03	0.03	7,476.44
TOTALS (lbs/day, mitigated)	3.49	5.05	9.12	0.00	0.03	0.03	5,983.39
Percent Reduction	36.55	19.84	20.07	NaN	0.00	0.00	19.97

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	52.66	69.91	543.22	0.64	126.61	24.49	68,296.29
TOTALS (lbs/day, mitigated)	24.44	29.03	225.41	0.26	52.54	10.16	28,339.25
Percent Reduction	53.59	58.48	58.50	59.38	58.50	58.51	58.51

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	58.16	76.21	554.63	0.64	126.64	24.52	75,772.73
TOTALS (lbs/day, mitigated)	27.93	34.08	234.53	0.26	52.57	10.19	34,322.64
Percent Reduction	51.98	55.28	57.71	59.38	58.49	58.44	54.70

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.45	6.22	5.23	0.00	0.01	0.01	7,465.20
Hearth - No Summer Emissions							
Landscape	0.49	0.08	6.18	0.00	0.02	0.02	11.24
Consumer Products	0.00						
Architectural Coatings	4.56						
TOTALS (lbs/day, unmitigated)	5.50	6.30	11.41	0.00	0.03	0.03	7,476.44

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.36	4.98	4.18	0.00	0.01	0.01	5,972.16
Hearth - No Summer Emissions							
Landscape	0.39	0.07	4.94	0.00	0.02	0.02	11.23
Consumer Products	0.00						
Architectural Coatings	2.74						
TOTALS (lbs/day, mitigated)	3.49	5.05	9.12	0.00	0.03	0.03	5,983.39

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Hotel	5.95	7.43	56.19	0.07	13.27	2.57	7,129.69
Strip mall	14.23	17.86	135.91	0.15	30.67	5.94	16,570.26
General office building	14.24	19.30	151.84	0.18	35.75	6.91	19,285.43
Office park	18.24	25.32	199.28	0.24	46.92	9.07	25,310.91
TOTALS (lbs/day, unmitigated)	52.66	69.91	543.22	0.64	126.61	24.49	68,296.29

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Hotel	2.94	3.11	23.49	0.03	5.55	1.07	2,981.06
Strip mall	6.31	7.51	57.12	0.06	12.89	2.50	6,963.76
General office building	6.76	7.96	62.60	0.07	14.74	2.85	7,952.04
Office park	8.43	10.45	82.20	0.10	19.36	3.74	10,442.39
TOTALS (lbs/day, mitigated)	24.44	29.03	225.41	0.26	52.54	10.16	28,339.25

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

Analysis Year: 2015 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Hotel		10.00	rooms	150.00	1,500.00	7,696.14
Strip mall		40.00	1000 sq ft	109.00	4,360.00	17,776.76
General office building		10.00	1000 sq ft	295.10	2,951.00	20,728.17
Office park		12.91	1000 sq ft	300.00	3,873.00	27,204.40
					12,684.00	73,405.47

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General office building				48.0	24.0	28.0
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 Operation.urb924

Project Name: Community Plaza District Phase 1

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.95	1.15	1.51	0.00	0.00	0.00	1,363.41
TOTALS (tons/year, mitigated)	0.61	0.92	1.21	0.00	0.00	0.00	1,090.93
Percent Reduction	35.79	20.00	19.87	NaN	NaN	NaN	19.99

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	10.03	13.84	103.32	0.11	23.10	4.47	12,240.37
TOTALS (tons/year, mitigated)	4.51	5.74	42.88	0.05	9.58	1.86	5,079.09
Percent Reduction	55.03	58.53	58.50	54.55	58.53	58.39	58.51

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	10.98	14.99	104.83	0.11	23.10	4.47	13,603.78
TOTALS (tons/year, mitigated)	5.12	6.66	44.09	0.05	9.58	1.86	6,170.02
Percent Reduction	53.37	55.57	57.94	54.55	58.53	58.39	54.64

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.08	1.14	0.95	0.00	0.00	0.00	1,362.40
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.04	0.01	0.56	0.00	0.00	0.00	1.01
Consumer Products	0.00						
Architectural Coatings	0.83						
TOTALS (tons/year, unmitigated)	0.95	1.15	1.51	0.00	0.00	0.00	1,363.41

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.07	0.91	0.76	0.00	0.00	0.00	1,089.92
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.04	0.01	0.45	0.00	0.00	0.00	1.01
Consumer Products	0.00						
Architectural Coatings	0.50						
TOTALS (tons/year, mitigated)	0.61	0.92	1.21	0.00	0.00	0.00	1,090.93

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Hotel	1.12	1.47	10.77	0.01	2.42	0.47	1,277.71
Strip mall	2.78	3.53	26.26	0.03	5.60	1.08	2,969.90
General office building	2.68	3.82	28.67	0.03	6.52	1.26	3,456.42
Office park	3.45	5.02	37.62	0.04	8.56	1.66	4,536.34
TOTALS (tons/year, unmitigated)	10.03	13.84	103.32	0.11	23.10	4.47	12,240.37

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Hotel	0.53	0.61	4.50	0.01	1.01	0.20	534.24
Strip mall	1.21	1.48	11.04	0.01	2.35	0.46	1,248.12
General office building	1.22	1.58	11.82	0.01	2.69	0.52	1,425.20
Office park	1.55	2.07	15.52	0.02	3.53	0.68	1,871.53
TOTALS (tons/year, mitigated)	4.51	5.74	42.88	0.05	9.58	1.86	5,079.09

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Hotel		10.00	rooms	150.00	1,500.00	7,696.14
Strip mall		40.00	1000 sq ft	109.00	4,360.00	17,776.76
General office building		10.00	1000 sq ft	295.10	2,951.00	20,728.17
Office park		12.91	1000 sq ft	300.00	3,873.00	27,204.40
					12,684.00	73,405.47

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General office building				48.0	24.0	28.0
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 and 2 Operation.urb924

Project Name: Community Plaza District Phase 1 and 2 Operation

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

5/11/2010 10:59:50 AM

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	17.89	8.35	15.52	0.00	0.04	0.04	10,012.27
TOTALS (lbs/day, mitigated)	15.13	6.68	12.42	0.00	0.04	0.04	8,013.19
Percent Reduction	15.43	20.00	19.97	NaN	0.00	0.00	19.97

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	81.04	108.46	837.76	0.98	195.48	37.81	105,366.30
TOTALS (lbs/day, mitigated)	39.55	48.97	378.97	0.44	88.48	17.11	47,698.15
Percent Reduction	51.20	54.85	54.76	55.10	54.74	54.75	54.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	98.93	116.81	853.28	0.98	195.52	37.85	115,378.57
TOTALS (lbs/day, mitigated)	54.68	55.65	391.39	0.44	88.52	17.15	55,711.34
Percent Reduction	44.73	52.36	54.13	55.10	54.73	54.69	51.71

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.60	8.23	6.25	0.00	0.01	0.01	9,995.42
Hearth - No Summer Emissions							
Landscape	0.74	0.12	9.27	0.00	0.03	0.03	16.85
Consumer Products	10.32						
Architectural Coatings	6.23						
TOTALS (lbs/day, unmitigated)	17.89	8.35	15.52	0.00	0.04	0.04	10,012.27

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.48	6.58	5.00	0.00	0.01	0.01	7,996.34
Hearth - No Summer Emissions							
Landscape	0.59	0.10	7.42	0.00	0.03	0.03	16.85
Consumer Products	10.32						
Architectural Coatings	3.74						
TOTALS (lbs/day, mitigated)	15.13	6.68	12.42	0.00	0.04	0.04	8,013.19

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	6.78	8.77	69.56	0.08	16.35	3.16	8,827.48
Hotel	5.95	7.43	56.19	0.07	13.27	2.57	7,129.69
Regnl shop. center	21.60	29.78	224.98	0.26	52.52	10.16	28,242.53
Strip mall	14.23	17.86	135.91	0.15	30.67	5.94	16,570.26
General office building	14.24	19.30	151.84	0.18	35.75	6.91	19,285.43
Office park	18.24	25.32	199.28	0.24	46.92	9.07	25,310.91
TOTALS (lbs/day, unmitigated)	81.04	108.46	837.76	0.98	195.48	37.81	105,366.30

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	6.01	7.58	60.15	0.07	14.13	2.73	7,632.31
Hotel	2.94	3.11	23.49	0.03	5.55	1.07	2,981.06
Regnl shop. center	9.10	12.36	93.41	0.11	21.81	4.22	11,726.59
Strip mall	6.31	7.51	57.12	0.06	12.89	2.50	6,963.76
General office building	6.76	7.96	62.60	0.07	14.74	2.85	7,952.04
Office park	8.43	10.45	82.20	0.10	19.36	3.74	10,442.39
TOTALS (lbs/day, mitigated)	39.55	48.97	378.97	0.44	88.48	17.11	47,698.15

Operational Settings:

Includes correction for passby trips

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Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

Analysis Year: 2015 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	13.19	6.00	dwelling units	211.00	1,266.00	9,476.34
Hotel		10.00	rooms	150.00	1,500.00	7,696.14
Regnl shop. center		150.00	1000 sq ft	43.00	6,450.00	30,446.78
Strip mall		40.00	1000 sq ft	109.00	4,360.00	17,776.76
General office building		10.00	1000 sq ft	295.10	2,951.00	20,728.17
Office park		12.91	1000 sq ft	300.00	3,873.00	27,204.40
					20,400.00	113,328.59

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Strip mall				2.0	1.0	97.0
General office building				48.0	24.0	28.0
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 and 2 Operation.urb924

Project Name: Community Plaza District Phase 1 and 2 Operation

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	3.20	1.51	1.97	0.00	0.00	0.00	1,826.09
TOTALS (tons/year, mitigated)	2.70	1.21	1.58	0.00	0.00	0.00	1,461.26
Percent Reduction	15.63	19.87	19.80	NaN	NaN	NaN	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.54	21.47	159.71	0.18	35.66	6.90	18,883.99
TOTALS (tons/year, mitigated)	7.40	9.69	72.20	0.08	16.14	3.13	8,548.60
Percent Reduction	52.38	54.87	54.79	55.56	54.74	54.64	54.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	18.74	22.98	161.68	0.18	35.66	6.90	20,710.08
TOTALS (tons/year, mitigated)	10.10	10.90	73.78	0.08	16.14	3.13	10,009.86
Percent Reduction	46.10	52.57	54.37	55.56	54.74	54.64	51.67

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.11	1.50	1.14	0.00	0.00	0.00	1,824.16
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Landscape	0.07	0.01	0.83	0.00	0.00	0.00	1.52
Consumer Products	1.88						
Architectural Coatings	1.14						
TOTALS (tons/year, unmitigated)	3.20	1.51	1.97	0.00	0.00	0.00	1,826.09

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.09	1.20	0.91	0.00	0.00	0.00	1,459.33
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Landscape	0.05	0.01	0.67	0.00	0.00	0.00	1.52
Consumer Products	1.88						
Architectural Coatings	0.68						
TOTALS (tons/year, mitigated)	2.70	1.21	1.58	0.00	0.00	0.00	1,461.26

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	1.26	1.74	13.13	0.02	2.98	0.58	1,582.14
Hotel	1.12	1.47	10.77	0.01	2.42	0.47	1,277.71
Regnl shop. center	4.25	5.89	43.26	0.05	9.58	1.85	5,061.48
Strip mall	2.78	3.53	26.26	0.03	5.60	1.08	2,969.90
General office building	2.68	3.82	28.67	0.03	6.52	1.26	3,456.42
Office park	3.45	5.02	37.62	0.04	8.56	1.66	4,536.34
TOTALS (tons/year, unmitigated)	15.54	21.47	159.71	0.18	35.66	6.90	18,883.99

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	1.11	1.50	11.36	0.01	2.58	0.50	1,367.93
Hotel	0.53	0.61	4.50	0.01	1.01	0.20	534.24
Regnl shop. center	1.78	2.45	17.96	0.02	3.98	0.77	2,101.58
Strip mall	1.21	1.48	11.04	0.01	2.35	0.46	1,248.12
General office building	1.22	1.58	11.82	0.01	2.69	0.52	1,425.20
Office park	1.55	2.07	15.52	0.02	3.53	0.68	1,871.53
TOTALS (tons/year, mitigated)	7.40	9.69	72.20	0.08	16.14	3.13	8,548.60

Operational Settings:

Includes correction for passby trips

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Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	13.19	6.00	dwelling units	211.00	1,266.00	9,476.34
Hotel		10.00	rooms	150.00	1,500.00	7,696.14
Regnl shop. center		150.00	1000 sq ft	43.00	6,450.00	30,446.78
Strip mall		40.00	1000 sq ft	109.00	4,360.00	17,776.76
General office building		10.00	1000 sq ft	295.10	2,951.00	20,728.17
Office park		12.91	1000 sq ft	300.00	3,873.00	27,204.40
					20,400.00	113,328.59

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Strip mall				2.0	1.0	97.0
General office building				48.0	24.0	28.0
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 2 and 3 Operation.urb924

Project Name: Community Plaza, Central East, and Western Districts Phase 1, 2 and 3 Operations

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

5/11/2010 11:01:30 AM

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	40.82	12.07	18.94	0.00	0.06	0.06	14,681.72
TOTALS (lbs/day, mitigated)	36.74	9.66	15.14	0.00	0.05	0.05	11,749.30
Percent Reduction	10.00	19.97	20.06	NaN	16.67	16.67	19.97

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	82.35	94.04	799.03	1.23	245.42	47.19	132,458.75
TOTALS (lbs/day, mitigated)	43.30	45.83	390.95	0.60	120.25	23.12	64,911.75
Percent Reduction	47.42	51.27	51.07	51.22	51.00	51.01	50.99

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	123.17	106.11	817.97	1.23	245.48	47.25	147,140.47
TOTALS (lbs/day, mitigated)	80.04	55.49	406.09	0.60	120.30	23.17	76,661.05
Percent Reduction	35.02	47.71	50.35	51.22	50.99	50.96	47.90

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.89	11.93	8.12	0.00	0.02	0.02	14,662.06
Hearth - No Summer Emissions							
Landscape	0.86	0.14	10.82	0.00	0.04	0.04	19.66
Consumer Products	29.75						
Architectural Coatings	9.32						
TOTALS (lbs/day, unmitigated)	40.82	12.07	18.94	0.00	0.06	0.06	14,681.72

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.71	9.54	6.49	0.00	0.02	0.02	11,729.65
Hearth - No Summer Emissions							
Landscape	0.69	0.12	8.65	0.00	0.03	0.03	19.65
Consumer Products	29.75						
Architectural Coatings	5.59						
TOTALS (lbs/day, mitigated)	36.74	9.66	15.14	0.00	0.05	0.05	11,749.30

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	13.70	14.86	129.82	0.20	40.26	7.74	21,758.58
Hotel	4.56	4.88	40.60	0.06	12.67	2.43	6,809.56
Regnl shop. center	16.29	19.56	162.41	0.25	50.11	9.63	26,974.26
Strip mall	10.75	11.72	97.89	0.15	29.27	5.63	15,825.79
Supermarket	12.32	13.70	114.41	0.17	34.21	6.59	18,497.30
General office building	10.86	12.68	109.80	0.17	34.12	6.56	18,419.21
Office park	13.87	16.64	144.10	0.23	44.78	8.61	24,174.05
TOTALS (lbs/day, unmitigated)	82.35	94.04	799.03	1.23	245.42	47.19	132,458.75

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	12.21	12.85	112.25	0.18	34.81	6.69	18,812.63
Hotel	2.29	2.04	16.97	0.03	5.30	1.02	2,847.21
Regnl shop. center	6.87	8.12	67.43	0.10	20.81	4.00	11,199.99
Strip mall	4.79	4.93	41.14	0.06	12.30	2.37	6,650.89
Supermarket	5.40	5.80	48.45	0.07	14.49	2.79	7,832.79
General office building	5.24	5.23	45.27	0.07	14.07	2.70	7,594.87
Office park	6.50	6.86	59.44	0.09	18.47	3.55	9,973.37
TOTALS (lbs/day, mitigated)	43.30	45.83	390.95	0.60	120.25	23.12	64,911.75

Operational Settings:

5/11/2010 11:01:30 AM

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 25.56   Nonresidential Trip % Reduction: 4.43

Analysis Year: 2020 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	38.00	5.14	dwelling units	608.00	3,122.70	23,374.23
Hotel		9.56	rooms	150.00	1,433.61	7,355.48
Regnl shop. center		143.36	1000 sq ft	43.00	6,164.50	29,099.10
Strip mall		38.23	1000 sq ft	109.00	4,167.01	16,989.91
Supermarket		66.90	1000 sq ft	72.80	4,870.43	19,857.93
General office building		9.56	1000 sq ft	295.10	2,820.38	19,810.67
Office park		12.34	1000 sq ft	300.00	3,701.57	26,000.24
					26,280.20	142,487.56

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Strip mall				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0
General office building				48.0	24.0	28.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 2 and 3 Operation.urb924

Project Name: Community Plaza, Central East, and Western Districts Phase 1, 2 and 3 Operations

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

5/11/2010 11:02:09 AM

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	7.37	2.19	2.45	0.00	0.00	0.00	2,678.78
TOTALS (tons/year, mitigated)	6.64	1.75	1.97	0.00	0.00	0.00	2,143.61
Percent Reduction	9.91	20.09	19.59	NaN	NaN	NaN	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	15.75	18.63	152.62	0.23	44.79	8.61	23,736.10
TOTALS (tons/year, mitigated)	8.07	9.09	74.59	0.10	21.94	4.22	11,631.98
Percent Reduction	48.76	51.21	51.13	56.52	51.02	50.99	50.99

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	23.12	20.82	155.07	0.23	44.79	8.61	26,414.88
TOTALS (tons/year, mitigated)	14.71	10.84	76.56	0.10	21.94	4.22	13,775.59
Percent Reduction	36.38	47.93	50.63	56.52	51.02	50.99	47.85

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.16	2.18	1.48	0.00	0.00	0.00	2,675.83
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	1.18
Landscape	0.08	0.01	0.97	0.00	0.00	0.00	1.77
Consumer Products	5.43						
Architectural Coatings	1.70						
TOTALS (tons/year, unmitigated)	7.37	2.19	2.45	0.00	0.00	0.00	2,678.78

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.13	1.74	1.19	0.00	0.00	0.00	2,140.66
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	1.18
Landscape	0.06	0.01	0.78	0.00	0.00	0.00	1.77
Consumer Products	5.43						
Architectural Coatings	1.02						
TOTALS (tons/year, mitigated)	6.64	1.75	1.97	0.00	0.00	0.00	2,143.61

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	2.51	2.95	24.56	0.04	7.35	1.41	3,899.15
Hotel	0.86	0.97	7.79	0.01	2.31	0.44	1,220.15
Regnl shop. center	3.20	3.87	31.23	0.05	9.15	1.76	4,833.43
Strip mall	2.10	2.32	18.91	0.03	5.34	1.03	2,836.03
Supermarket	2.42	2.71	22.10	0.03	6.24	1.20	3,314.77
General office building	2.04	2.51	20.77	0.03	6.23	1.20	3,300.66
Office park	2.62	3.30	27.26	0.04	8.17	1.57	4,331.91
TOTALS (tons/year, unmitigated)	15.75	18.63	152.62	0.23	44.79	8.61	23,736.10

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	2.22	2.55	21.24	0.03	6.35	1.22	3,371.24
Hotel	0.41	0.40	3.26	0.00	0.97	0.19	510.17
Regnl shop. center	1.34	1.61	12.97	0.02	3.80	0.73	2,006.89
Strip mall	0.92	0.98	7.95	0.01	2.24	0.43	1,191.86
Supermarket	1.05	1.15	9.36	0.01	2.64	0.51	1,403.66
General office building	0.94	1.04	8.56	0.01	2.57	0.49	1,360.97
Office park	1.19	1.36	11.25	0.02	3.37	0.65	1,787.19
TOTALS (tons/year, mitigated)	8.07	9.09	74.59	0.10	21.94	4.22	11,631.98

Operational Settings:

5/11/2010 11:02:09 AM

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 25.56   Nonresidential Trip % Reduction: 4.43

Analysis Year: 2020 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	38.00	5.14	dwelling units	608.00	3,122.70	23,374.23
Hotel		9.56	rooms	150.00	1,433.61	7,355.48
Regnl shop. center		143.36	1000 sq ft	43.00	6,164.50	29,099.10
Strip mall		38.23	1000 sq ft	109.00	4,167.01	16,989.91
Supermarket		66.90	1000 sq ft	72.80	4,870.43	19,857.93
General office building		9.56	1000 sq ft	295.10	2,820.38	19,810.67
Office park		12.34	1000 sq ft	300.00	3,701.57	26,000.24
					26,280.20	142,487.56

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Strip mall				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0
General office building				48.0	24.0	28.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 Construction.urb924

Project Name: Community Plaza District Phase 1 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (lbs/day unmitigated)	15.14	220.05	75.33	0.26	30.99	8.10	39.09	6.59	7.45	14.04	30,470.60
2011 TOTALS (lbs/day mitigated)	15.14	216.53	75.33	0.26	5.72	7.10	12.82	1.31	6.54	7.85	30,470.60
2012 TOTALS (lbs/day unmitigated)	136.64	234.63	136.12	0.32	31.30	9.77	41.07	6.70	8.97	15.67	39,452.10
2012 TOTALS (lbs/day mitigated)	90.60	227.10	136.12	0.32	6.03	6.98	13.02	1.43	6.41	7.83	39,452.10

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

Time Slice 11/28/2011-12/30/2011 Active Days: 25	15.14	220.05	75.33	0.26	30.99	8.10	39.09	6.59	7.45	14.04	30,470.60
Mass Grading 11/28/2011-04/19/2012	15.14	220.05	75.33	0.26	30.99	8.10	39.09	6.59	7.45	14.04	30,470.60
Mass Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Mass Grading Off Road Diesel	2.83	23.44	11.96	0.00	0.00	1.17	1.17	0.00	1.08	1.08	2,247.32
Mass Grading On Road Diesel	12.28	196.55	62.48	0.26	0.98	6.93	7.91	0.32	6.37	6.69	28,130.45
Mass Grading Worker Trips	0.03	0.06	0.89	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.84
Time Slice 1/2/2012-2/3/2012 Active Days: 25	14.03	197.37	68.92	0.26	30.99	7.20	38.19	6.59	6.62	13.21	30,470.58
Mass Grading 11/28/2011-04/19/2012	14.03	197.37	68.92	0.26	30.99	7.20	38.19	6.59	6.62	13.21	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82
Time Slice 2/6/2012-2/10/2012 Active Days: 5	19.03	220.53	125.12	0.32	31.29	8.58	39.86	6.70	7.87	14.57	37,939.45
Building 02/06/2012-08/17/2012	5.00	23.16	56.20	0.06	0.30	1.38	1.67	0.11	1.25	1.36	7,468.87
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Mass Grading 11/28/2011-04/19/2012	14.03	197.37	68.92	0.26	30.99	7.20	38.19	6.59	6.62	13.21	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 2/13/2012-3/2/2012 Active Days: 15	21.50	234.56	135.01	0.32	31.30	9.77	41.06	6.70	8.97	15.67	39,327.42
Asphalt 02/13/2012-06/29/2012	2.47	14.03	9.89	0.00	0.01	1.19	1.20	0.00	1.09	1.10	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	13.48	8.10	0.00	0.00	1.17	1.17	0.00	1.07	1.07	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	23.16	56.20	0.06	0.30	1.38	1.67	0.11	1.25	1.36	7,468.87
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Mass Grading 11/28/2011-04/19/2012	14.03	197.37	68.92	0.26	30.99	7.20	38.19	6.59	6.62	13.21	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 3/5/2012-4/19/2012 Active Days: 34	**136.64**	**234.63**	**136.12**	**0.32**	**31.30**	**9.77**	**41.07**	**6.70**	**8.97**	**15.67**	**39,452.10**
Asphalt 02/13/2012-06/29/2012	2.47	14.03	9.89	0.00	0.01	1.19	1.20	0.00	1.09	1.10	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	13.48	8.10	0.00	0.00	1.17	1.17	0.00	1.07	1.07	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	23.16	56.20	0.06	0.30	1.38	1.67	0.11	1.25	1.36	7,468.87
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	115.14	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	115.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Mass Grading 11/28/2011-04/19/2012	14.03	197.37	68.92	0.26	30.99	7.20	38.19	6.59	6.62	13.21	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	30.00	0.00	30.00	6.27	0.00	6.27	0.00
Mass Grading Off Road Diesel	2.69	21.95	11.51	0.00	0.00	1.07	1.07	0.00	0.99	0.99	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 4/20/2012-6/29/2012 Active Days: 51	122.61	37.26	67.20	0.06	0.31	2.57	2.88	0.11	2.35	2.46	8,981.52
Asphalt 02/13/2012-06/29/2012	2.47	14.03	9.89	0.00	0.01	1.19	1.20	0.00	1.09	1.10	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	13.48	8.10	0.00	0.00	1.17	1.17	0.00	1.07	1.07	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	23.16	56.20	0.06	0.30	1.38	1.67	0.11	1.25	1.36	7,468.87
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	115.14	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	115.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Time Slice 7/2/2012-8/17/2012 Active Days: 35	120.14	23.23	57.31	0.06	0.30	1.38	1.68	0.11	1.25	1.36	7,593.55
Building 02/06/2012-08/17/2012	5.00	23.16	56.20	0.06	0.30	1.38	1.67	0.11	1.25	1.36	7,468.87
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	115.14	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	115.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68

Time Slice 8/20/2012-9/21/2012 Active Days: 25	115.14	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Coating 03/05/2012-09/21/2012	115.14	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	115.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68

Phase Assumptions

Phase: Mass Grading 11/28/2011 - 4/19/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 6987.18

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/13/2012 - 6/29/2012 - Default Paving Description

Acres to be Paved: 5.9

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 2/6/2012 - 8/17/2012 - Default Building Construction Description

Off-Road Equipment:

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1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 3/5/2012 - 9/21/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 11/28/2011-12/30/2011 Active Days: 25	15.14	216.53	75.33	0.26	5.72	7.10	12.82	1.31	6.54	7.85	30,470.60
Mass Grading 11/28/2011-04/19/2012	15.14	216.53	75.33	0.26	5.72	7.10	12.82	1.31	6.54	7.85	30,470.60
Mass Grading Dust	0.00	0.00	0.00	0.00	4.73	0.00	4.73	0.99	0.00	0.99	0.00
Mass Grading Off Road Diesel	2.83	19.92	11.96	0.00	0.00	0.18	0.18	0.00	0.16	0.16	2,247.32
Mass Grading On Road Diesel	12.28	196.55	62.48	0.26	0.98	6.93	7.91	0.32	6.37	6.69	28,130.45
Mass Grading Worker Trips	0.03	0.06	0.89	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.84

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Time Slice 1/2/2012-2/3/2012 Active Days: 25	14.03	194.08	68.92	0.26	5.72	6.29	12.01	1.31	5.79	7.10	30,470.58
Mass Grading 11/28/2011-04/19/2012	14.03	194.08	68.92	0.26	5.72	6.29	12.01	1.31	5.79	7.10	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	4.73	0.00	4.73	0.99	0.00	0.99	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.16	0.16	0.00	0.15	0.15	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82
Time Slice 2/6/2012-2/10/2012 Active Days: 5	19.03	215.02	125.12	0.32	6.01	6.78	12.80	1.42	6.22	7.64	37,939.45
Building 02/06/2012-08/17/2012	5.00	20.94	56.20	0.06	0.30	0.50	0.79	0.11	0.44	0.55	7,468.87
Building Off Road Diesel	3.14	12.59	10.52	0.00	0.00	0.16	0.16	0.00	0.14	0.14	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Mass Grading 11/28/2011-04/19/2012	14.03	194.08	68.92	0.26	5.72	6.29	12.01	1.31	5.79	7.10	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	4.73	0.00	4.73	0.99	0.00	0.99	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.16	0.16	0.00	0.15	0.15	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 2/13/2012-3/2/2012 Active Days: 15	21.50	227.03	135.01	0.32	6.03	6.98	13.01	1.42	6.40	7.83	39,327.42
Asphalt 02/13/2012-06/29/2012	2.47	12.01	9.89	0.00	0.01	0.20	0.21	0.00	0.18	0.18	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	11.46	8.10	0.00	0.00	0.18	0.18	0.00	0.16	0.16	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	20.94	56.20	0.06	0.30	0.50	0.79	0.11	0.44	0.55	7,468.87
Building Off Road Diesel	3.14	12.59	10.52	0.00	0.00	0.16	0.16	0.00	0.14	0.14	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Mass Grading 11/28/2011-04/19/2012	14.03	194.08	68.92	0.26	5.72	6.29	12.01	1.31	5.79	7.10	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	4.73	0.00	4.73	0.99	0.00	0.99	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.16	0.16	0.00	0.15	0.15	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 3/5/2012-4/19/2012 Active Days: 34	90.60	227.10	**136.12**	**0.32**	6.03	6.98	13.02	1.43	6.41	7.83	**39,452.10**
Asphalt 02/13/2012-06/29/2012	2.47	12.01	9.89	0.00	0.01	0.20	0.21	0.00	0.18	0.18	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	11.46	8.10	0.00	0.00	0.18	0.18	0.00	0.16	0.16	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	20.94	56.20	0.06	0.30	0.50	0.79	0.11	0.44	0.55	7,468.87
Building Off Road Diesel	3.14	12.59	10.52	0.00	0.00	0.16	0.16	0.00	0.14	0.14	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	69.10	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	69.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Mass Grading 11/28/2011-04/19/2012	14.03	194.08	68.92	0.26	5.72	6.29	12.01	1.31	5.79	7.10	30,470.58
Mass Grading Dust	0.00	0.00	0.00	0.00	4.73	0.00	4.73	0.99	0.00	0.99	0.00
Mass Grading Off Road Diesel	2.69	18.65	11.51	0.00	0.00	0.16	0.16	0.00	0.15	0.15	2,247.32
Mass Grading On Road Diesel	11.31	175.37	56.57	0.26	0.98	6.13	7.11	0.32	5.64	5.96	28,130.45
Mass Grading Worker Trips	0.03	0.05	0.83	0.00	0.00	0.00	0.01	0.00	0.00	0.00	92.82

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Time Slice 4/20/2012-6/29/2012 Active Days: 51	76.57	33.02	67.20	0.06	0.31	0.70	1.01	0.11	0.62	0.73	8,981.52
Asphalt 02/13/2012-06/29/2012	2.47	12.01	9.89	0.00	0.01	0.20	0.21	0.00	0.18	0.18	1,387.97
Paving Off-Gas	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.23	11.46	8.10	0.00	0.00	0.18	0.18	0.00	0.16	0.16	1,131.92
Paving On Road Diesel	0.03	0.44	0.14	0.00	0.00	0.02	0.02	0.00	0.01	0.01	70.42
Paving Worker Trips	0.06	0.11	1.65	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.63
Building 02/06/2012-08/17/2012	5.00	20.94	56.20	0.06	0.30	0.50	0.79	0.11	0.44	0.55	7,468.87
Building Off Road Diesel	3.14	12.59	10.52	0.00	0.00	0.16	0.16	0.00	0.14	0.14	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	69.10	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	69.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Time Slice 7/2/2012-8/17/2012 Active Days: 35	74.10	21.01	57.31	0.06	0.30	0.50	0.80	0.11	0.44	0.55	7,593.55
Building 02/06/2012-08/17/2012	5.00	20.94	56.20	0.06	0.30	0.50	0.79	0.11	0.44	0.55	7,468.87
Building Off Road Diesel	3.14	12.59	10.52	0.00	0.00	0.16	0.16	0.00	0.14	0.14	1,621.20
Building Vendor Trips	0.43	5.63	4.44	0.01	0.05	0.20	0.25	0.02	0.19	0.20	1,219.59
Building Worker Trips	1.43	2.72	41.24	0.04	0.25	0.14	0.39	0.09	0.11	0.20	4,628.08
Coating 03/05/2012-09/21/2012	69.10	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	69.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68

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Time Slice 8/20/2012-9/21/2012 Active Days: 25	69.10	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Coating 03/05/2012-09/21/2012	69.10	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68
Architectural Coating	69.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.04	0.07	1.11	0.00	0.01	0.00	0.01	0.00	0.00	0.01	124.68

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/28/2011 - 4/19/2012 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Graders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

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NOX: 15%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Paving 2/13/2012 - 6/29/2012 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 2/6/2012 - 8/17/2012 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

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NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 3/5/2012 - 9/21/2012 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 Construction.urb924

Project Name: Community Plaza District Phase 1 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011 TOTALS (tons/year unmitigated)	0.19	2.75	0.94	0.00	0.39	0.10	0.49	0.08	0.09	0.18	380.88
2011 TOTALS (tons/year mitigated)	0.19	2.71	0.94	0.00	0.07	0.09	0.16	0.02	0.08	0.10	380.88
Percent Reduction	0.00	1.60	0.00	0.00	81.55	12.30	67.20	80.08	12.30	44.11	0.00
2012 TOTALS (tons/year unmitigated)	9.38	10.12	7.23	0.01	1.25	0.44	1.69	0.27	0.40	0.67	1,804.85
2012 TOTALS (tons/year mitigated)	6.04	9.74	7.23	0.01	0.25	0.29	0.54	0.06	0.27	0.33	1,804.85
Percent Reduction	35.60	3.82	0.00	0.00	80.12	33.44	67.93	77.75	33.54	51.18	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2011	0.19	2.75	0.94	0.00	0.39	0.10	0.49	0.08	0.09	0.18	380.88
Mass Grading 11/28/2011-04/19/2012	0.19	2.75	0.94	0.00	0.39	0.10	0.49	0.08	0.09	0.18	380.88
Mass Grading Dust	0.00	0.00	0.00	0.00	0.38	0.00	0.38	0.08	0.00	0.08	0.00
Mass Grading Off Road Diesel	0.04	0.29	0.15	0.00	0.00	0.01	0.01	0.00	0.01	0.01	28.09
Mass Grading On Road Diesel	0.15	2.46	0.78	0.00	0.01	0.09	0.10	0.00	0.08	0.08	351.63
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16

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2012	9.38	10.12	7.23	0.01	1.25	0.44	1.69	0.27	0.40	0.67	1,804.85
Mass Grading 11/28/2011-04/19/2012	0.55	7.80	2.72	0.01	1.22	0.28	1.51	0.26	0.26	0.52	1,203.59
Mass Grading Dust	0.00	0.00	0.00	0.00	1.19	0.00	1.19	0.25	0.00	0.25	0.00
Mass Grading Off Road Diesel	0.11	0.87	0.45	0.00	0.00	0.04	0.04	0.00	0.04	0.04	88.77
Mass Grading On Road Diesel	0.45	6.93	2.23	0.01	0.04	0.24	0.28	0.01	0.22	0.24	1,111.15
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.67
Building 02/06/2012-08/17/2012	0.35	1.62	3.93	0.00	0.02	0.10	0.12	0.01	0.09	0.09	522.82
Building Off Road Diesel	0.22	1.04	0.74	0.00	0.00	0.07	0.07	0.00	0.07	0.07	113.48
Building Vendor Trips	0.03	0.39	0.31	0.00	0.00	0.01	0.02	0.00	0.01	0.01	85.37
Building Worker Trips	0.10	0.19	2.89	0.00	0.02	0.01	0.03	0.01	0.01	0.01	323.97
Asphalt 02/13/2012-06/29/2012	0.12	0.70	0.49	0.00	0.00	0.06	0.06	0.00	0.05	0.05	69.40
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.11	0.67	0.40	0.00	0.00	0.06	0.06	0.00	0.05	0.05	56.60
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.52
Paving Worker Trips	0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.28
Coating 03/05/2012-09/21/2012	8.35	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.04
Architectural Coating	8.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.04

Phase Assumptions

Phase: Mass Grading 11/28/2011 - 4/19/2012 - Default Fine Site Grading Description

Total Acres Disturbed: 23

Maximum Daily Acreage Disturbed: 1.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 6987.18

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/13/2012 - 6/29/2012 - Default Paving Description

Acres to be Paved: 5.9

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 2/6/2012 - 8/17/2012 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 3/5/2012 - 9/21/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

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Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2011	0.19	2.71	0.94	0.00	0.07	0.09	0.16	0.02	0.08	0.10	380.88
Mass Grading 11/28/2011-04/19/2012	0.19	2.71	0.94	0.00	0.07	0.09	0.16	0.02	0.08	0.10	380.88
Mass Grading Dust	0.00	0.00	0.00	0.00	0.06	0.00	0.06	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.04	0.25	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.09
Mass Grading On Road Diesel	0.15	2.46	0.78	0.00	0.01	0.09	0.10	0.00	0.08	0.08	351.63
Mass Grading Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.16

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2012	6.04	9.74	7.23	0.01	0.25	0.29	0.54	0.06	0.27	0.33	1,804.85
Mass Grading 11/28/2011-04/19/2012	0.55	7.67	2.72	0.01	0.23	0.25	0.47	0.05	0.23	0.28	1,203.59
Mass Grading Dust	0.00	0.00	0.00	0.00	0.19	0.00	0.19	0.04	0.00	0.04	0.00
Mass Grading Off Road Diesel	0.11	0.74	0.45	0.00	0.00	0.01	0.01	0.00	0.01	0.01	88.77
Mass Grading On Road Diesel	0.45	6.93	2.23	0.01	0.04	0.24	0.28	0.01	0.22	0.24	1,111.15
Mass Grading Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.67
Building 02/06/2012-08/17/2012	0.35	1.47	3.93	0.00	0.02	0.03	0.06	0.01	0.03	0.04	522.82
Building Off Road Diesel	0.22	0.88	0.74	0.00	0.00	0.01	0.01	0.00	0.01	0.01	113.48
Building Vendor Trips	0.03	0.39	0.31	0.00	0.00	0.01	0.02	0.00	0.01	0.01	85.37
Building Worker Trips	0.10	0.19	2.89	0.00	0.02	0.01	0.03	0.01	0.01	0.01	323.97
Asphalt 02/13/2012-06/29/2012	0.12	0.60	0.49	0.00	0.00	0.01	0.01	0.00	0.01	0.01	69.40
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.11	0.57	0.40	0.00	0.00	0.01	0.01	0.00	0.01	0.01	56.60
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.52
Paving Worker Trips	0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.28
Coating 03/05/2012-09/21/2012	5.01	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.04
Architectural Coating	5.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.01	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.04

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/28/2011 - 4/19/2012 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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For Soil Stablizing Measures, the Equipment loading/unloading mitigation reduces emissions by:

PM10: 69% PM25: 69%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Graders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Paving 2/13/2012 - 6/29/2012 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

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NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 2/6/2012 - 8/17/2012 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 3/5/2012 - 9/21/2012 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 and 2 Construction.urb924

Project Name: Community Plaza District Phase 1 and 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (lbs/day unmitigated)	39.92	31.67	36.62	0.03	0.14	2.22	2.35	0.05	2.03	2.08	5,549.03
2013 TOTALS (lbs/day mitigated)	26.35	27.66	36.62	0.03	0.14	0.50	0.64	0.05	0.45	0.50	5,549.03

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/7/2013-1/11/2013 Active Days: 5	3.62	18.27	26.62	0.02	0.12	1.11	1.23	0.04	1.01	1.05	4,113.32
Building 01/07/2013-08/16/2013	3.62	18.27	26.62	0.02	0.12	1.11	1.23	0.04	1.01	1.05	4,113.32
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23

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Time Slice 1/14/2013-3/1/2013 Active Days: 35	37.56	18.29	26.92	0.02	0.12	1.11	1.23	0.04	1.01	1.06	4,150.07
Building 01/07/2013-08/16/2013	3.62	18.27	26.62	0.02	0.12	1.11	1.23	0.04	1.01	1.05	4,113.32
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	33.94	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	33.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Time Slice 3/4/2013-6/28/2013 Active Days: 85	**39.92**	**31.67**	**36.62**	**0.03**	**0.14**	**2.22**	**2.35**	**0.05**	**2.03**	**2.08**	**5,549.03**
Asphalt 03/04/2013-06/28/2013	2.36	13.38	9.70	0.00	0.01	1.11	1.12	0.00	1.02	1.03	1,398.96
Paving Off-Gas	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	12.84	8.03	0.00	0.00	1.09	1.09	0.00	1.00	1.00	1,131.92
Paving On Road Diesel	0.03	0.45	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	81.44
Paving Worker Trips	0.05	0.10	1.53	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.60
Building 01/07/2013-08/16/2013	3.62	18.27	26.62	0.02	0.12	1.11	1.23	0.04	1.01	1.05	4,113.32
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	33.94	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	33.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75

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Time Slice 7/1/2013-8/16/2013 Active Days: 35	37.56	18.29	26.92	0.02	0.12	1.11	1.23	0.04	1.01	1.06	4,150.07
Building 01/07/2013-08/16/2013	3.62	18.27	26.62	0.02	0.12	1.11	1.23	0.04	1.01	1.05	4,113.32
Building Off Road Diesel	2.88	13.91	10.20	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	33.94	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	33.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Time Slice 8/19/2013-9/20/2013 Active Days: 25	33.94	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Coating 01/14/2013-09/21/2013	33.94	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	33.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75

Phase Assumptions

Phase: Paving 3/4/2013 - 6/28/2013 - Default Paving Description

Acres to be Paved: 5.8

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 1/7/2013 - 8/16/2013 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

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1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 1/14/2013 - 9/21/2013 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/7/2013-1/11/2013 Active Days: 5	3.62	16.18	26.62	0.02	0.12	0.31	0.44	0.04	0.28	0.33	4,113.32
Building 01/07/2013-08/16/2013	3.62	16.18	26.62	0.02	0.12	0.31	0.44	0.04	0.28	0.33	4,113.32
Building Off Road Diesel	2.88	11.82	10.20	0.00	0.00	0.14	0.14	0.00	0.13	0.13	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23

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Time Slice 1/14/2013-3/1/2013 Active Days: 35	23.99	16.20	26.92	0.02	0.12	0.32	0.44	0.04	0.28	0.33	4,150.07
Building 01/07/2013-08/16/2013	3.62	16.18	26.62	0.02	0.12	0.31	0.44	0.04	0.28	0.33	4,113.32
Building Off Road Diesel	2.88	11.82	10.20	0.00	0.00	0.14	0.14	0.00	0.13	0.13	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	20.37	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Time Slice 3/4/2013-6/28/2013 Active Days: 85	26.35	27.66	**36.62**	**0.03**	**0.14**	0.50	0.64	**0.05**	0.45	0.50	**5,549.03**
Asphalt 03/04/2013-06/28/2013	2.36	11.46	9.70	0.00	0.01	0.18	0.20	0.00	0.17	0.17	1,398.96
Paving Off-Gas	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.10	10.91	8.03	0.00	0.00	0.16	0.16	0.00	0.15	0.15	1,131.92
Paving On Road Diesel	0.03	0.45	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	81.44
Paving Worker Trips	0.05	0.10	1.53	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.60
Building 01/07/2013-08/16/2013	3.62	16.18	26.62	0.02	0.12	0.31	0.44	0.04	0.28	0.33	4,113.32
Building Off Road Diesel	2.88	11.82	10.20	0.00	0.00	0.14	0.14	0.00	0.13	0.13	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	20.37	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75

Time Slice 7/1/2013-8/16/2013 Active Days: 35	23.99	16.20	26.92	0.02	0.12	0.32	0.44	0.04	0.28	0.33	4,150.07
Building 01/07/2013-08/16/2013	3.62	16.18	26.62	0.02	0.12	0.31	0.44	0.04	0.28	0.33	4,113.32
Building Off Road Diesel	2.88	11.82	10.20	0.00	0.00	0.14	0.14	0.00	0.13	0.13	1,621.20
Building Vendor Trips	0.27	3.47	2.69	0.01	0.03	0.13	0.16	0.01	0.12	0.13	826.89
Building Worker Trips	0.47	0.89	13.73	0.02	0.09	0.05	0.14	0.03	0.04	0.07	1,665.23
Coating 01/14/2013-09/21/2013	20.37	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Time Slice 8/19/2013-9/20/2013 Active Days: 25	20.37	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Coating 01/14/2013-09/21/2013	20.37	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75
Architectural Coating	20.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.02	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.75

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Paving 3/4/2013 - 6/28/2013 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

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NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 1/7/2013 - 8/16/2013 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 1/14/2013 - 9/21/2013 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 and 2 Construction.urb924

Project Name: Community Plaza District Phase 1 and 2 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (tons/year unmitigated)	3.44	2.03	2.57	0.00	0.01	0.14	0.15	0.00	0.12	0.13	391.83
2013 TOTALS (tons/year mitigated)	2.22	1.78	2.57	0.00	0.01	0.03	0.04	0.00	0.03	0.03	391.83
Percent Reduction	35.46	12.24	0.00	0.00	0.00	75.61	70.23	0.00	75.94	73.75	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2013	3.44	2.03	2.57	0.00	0.01	0.14	0.15	0.00	0.12	0.13	391.83
Building 01/07/2013-08/16/2013	0.29	1.46	2.13	0.00	0.01	0.09	0.10	0.00	0.08	0.08	329.07
Building Off Road Diesel	0.23	1.11	0.82	0.00	0.00	0.07	0.07	0.00	0.07	0.07	129.70
Building Vendor Trips	0.02	0.28	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	66.15
Building Worker Trips	0.04	0.07	1.10	0.00	0.01	0.00	0.01	0.00	0.00	0.01	133.22
Coating 01/14/2013-09/21/2013	3.05	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31
Architectural Coating	3.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31
Asphalt 03/04/2013-06/28/2013	0.10	0.57	0.41	0.00	0.00	0.05	0.05	0.00	0.04	0.04	59.46
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.09	0.55	0.34	0.00	0.00	0.05	0.05	0.00	0.04	0.04	48.11
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.89

Phase Assumptions

Phase: Paving 3/4/2013 - 6/28/2013 - Default Paving Description

Acres to be Paved: 5.8

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

2 Paving Equipment (104 hp) operating at a 0.53 load factor for 6 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 1/7/2013 - 8/16/2013 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

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2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 1/14/2013 - 9/21/2013 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2013	2.22	1.78	2.57	0.00	0.01	0.03	0.04	0.00	0.03	0.03	391.83
Building 01/07/2013-08/16/2013	0.29	1.29	2.13	0.00	0.01	0.03	0.03	0.00	0.02	0.03	329.07
Building Off Road Diesel	0.23	0.95	0.82	0.00	0.00	0.01	0.01	0.00	0.01	0.01	129.70
Building Vendor Trips	0.02	0.28	0.21	0.00	0.00	0.01	0.01	0.00	0.01	0.01	66.15
Building Worker Trips	0.04	0.07	1.10	0.00	0.01	0.00	0.01	0.00	0.00	0.01	133.22
Coating 01/14/2013-09/21/2013	1.83	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31
Architectural Coating	1.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.31
Asphalt 03/04/2013-06/28/2013	0.10	0.49	0.41	0.00	0.00	0.01	0.01	0.00	0.01	0.01	59.46
Paving Off-Gas	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.09	0.46	0.34	0.00	0.00	0.01	0.01	0.00	0.01	0.01	48.11
Paving On Road Diesel	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46
Paving Worker Trips	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.89

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Paving 3/4/2013 - 6/28/2013 - Default Paving Description

For Cement and Mortar Mixers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cement and Mortar Mixers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

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For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 1/7/2013 - 8/16/2013 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 1/14/2013 - 9/21/2013 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 2 and 3 Construction.urb924

Project Name: Western Districts Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2014 TOTALS (lbs/day unmitigated)	96.81	33.68	49.20	0.05	0.24	2.21	2.45	0.09	2.02	2.10	7,900.14
2014 TOTALS (lbs/day mitigated)	60.59	30.26	49.20	0.05	0.24	0.79	1.03	0.09	0.71	0.80	7,900.14

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/6/2014-1/24/2014 Active Days: 15	3.89	20.19	38.04	0.04	0.22	1.12	1.35	0.08	1.02	1.10	6,248.99
Building 01/06/2014-05/16/2014	3.89	20.19	38.04	0.04	0.22	1.12	1.35	0.08	1.02	1.10	6,248.99
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64

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Time Slice 1/27/2014-1/31/2014 Active Days: 5	6.24	33.63	48.46	0.05	0.24	2.20	2.44	0.08	2.02	2.10	7,802.09
Asphalt 01/27/2014-02/28/2014	2.35	13.44	10.42	0.00	0.01	1.08	1.09	0.00	0.99	1.00	1,553.10
Paving Off-Gas	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.06	12.89	8.85	0.00	0.00	1.06	1.06	0.00	0.98	0.98	1,272.04
Paving On Road Diesel	0.03	0.46	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	95.48
Paving Worker Trips	0.05	0.09	1.41	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.58
Building 01/06/2014-05/16/2014	3.89	20.19	38.04	0.04	0.22	1.12	1.35	0.08	1.02	1.10	6,248.99
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Time Slice 2/3/2014-2/28/2014 Active Days: 20	96.81	33.68	49.20	0.05	0.24	2.21	2.45	0.09	2.02	2.10	7,900.14
Asphalt 01/27/2014-02/28/2014	2.35	13.44	10.42	0.00	0.01	1.08	1.09	0.00	0.99	1.00	1,553.10
Paving Off-Gas	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.06	12.89	8.85	0.00	0.00	1.06	1.06	0.00	0.98	0.98	1,272.04
Paving On Road Diesel	0.03	0.46	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	95.48
Paving Worker Trips	0.05	0.09	1.41	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.58
Building 01/06/2014-05/16/2014	3.89	20.19	38.04	0.04	0.22	1.12	1.35	0.08	1.02	1.10	6,248.99
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Coating 02/03/2014-07/25/2014	90.57	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	90.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05

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Time Slice 3/3/2014-5/16/2014 Active Days: 55	94.46	20.24	38.79	0.04	0.23	1.13	1.36	0.08	1.02	1.11	6,347.04
Building 01/06/2014-05/16/2014	3.89	20.19	38.04	0.04	0.22	1.12	1.35	0.08	1.02	1.10	6,248.99
Building Off Road Diesel	2.63	12.97	9.89	0.00	0.00	0.82	0.82	0.00	0.76	0.76	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Coating 02/03/2014-07/25/2014	90.57	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	90.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Time Slice 5/19/2014-7/25/2014 Active Days: 50	90.57	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Coating 02/03/2014-07/25/2014	90.57	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	90.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05

Phase Assumptions

Phase: Paving 1/27/2014 - 2/28/2014 - Default Paving Description

Acres to be Paved: 2

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/6/2014 - 5/16/2014 - Default Building Construction Description

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

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2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 2/3/2014 - 7/25/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 1/6/2014-1/24/2014 Active Days: 15	3.89	18.24	38.04	0.04	0.22	0.42	0.65	0.08	0.38	0.46	6,248.99
Building 01/06/2014-05/16/2014	3.89	18.24	38.04	0.04	0.22	0.42	0.65	0.08	0.38	0.46	6,248.99
Building Off Road Diesel	2.63	11.03	9.89	0.00	0.00	0.12	0.12	0.00	0.11	0.11	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64

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Time Slice 1/27/2014-1/31/2014 Active Days: 5	6.24	30.21	48.46	0.05	0.24	0.78	1.02	0.08	0.71	0.79	7,802.09
Asphalt 01/27/2014-02/28/2014	2.35	11.97	10.42	0.00	0.01	0.36	0.37	0.00	0.33	0.34	1,553.10
Paving Off-Gas	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.06	11.41	8.85	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,272.04
Paving On Road Diesel	0.03	0.46	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	95.48
Paving Worker Trips	0.05	0.09	1.41	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.58
Building 01/06/2014-05/16/2014	3.89	18.24	38.04	0.04	0.22	0.42	0.65	0.08	0.38	0.46	6,248.99
Building Off Road Diesel	2.63	11.03	9.89	0.00	0.00	0.12	0.12	0.00	0.11	0.11	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Time Slice 2/3/2014-2/28/2014 Active Days: 20	60.59	30.26	49.20	0.05	0.24	0.79	1.03	0.09	0.71	0.80	7,900.14
Asphalt 01/27/2014-02/28/2014	2.35	11.97	10.42	0.00	0.01	0.36	0.37	0.00	0.33	0.34	1,553.10
Paving Off-Gas	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.06	11.41	8.85	0.00	0.00	0.34	0.34	0.00	0.31	0.31	1,272.04
Paving On Road Diesel	0.03	0.46	0.15	0.00	0.00	0.02	0.02	0.00	0.01	0.02	95.48
Paving Worker Trips	0.05	0.09	1.41	0.00	0.01	0.01	0.02	0.00	0.00	0.01	185.58
Building 01/06/2014-05/16/2014	3.89	18.24	38.04	0.04	0.22	0.42	0.65	0.08	0.38	0.46	6,248.99
Building Off Road Diesel	2.63	11.03	9.89	0.00	0.00	0.12	0.12	0.00	0.11	0.11	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Coating 02/03/2014-07/25/2014	54.35	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	54.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05

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Time Slice 3/3/2014-5/16/2014 Active Days: 55	58.24	18.29	38.79	0.04	0.23	0.43	0.66	0.08	0.38	0.46	6,347.04
Building 01/06/2014-05/16/2014	3.89	18.24	38.04	0.04	0.22	0.42	0.65	0.08	0.38	0.46	6,248.99
Building Off Road Diesel	2.63	11.03	9.89	0.00	0.00	0.12	0.12	0.00	0.11	0.11	1,621.20
Building Vendor Trips	0.46	5.70	4.63	0.01	0.06	0.21	0.27	0.02	0.19	0.21	1,543.15
Building Worker Trips	0.79	1.52	23.52	0.03	0.17	0.09	0.26	0.06	0.07	0.13	3,084.64
Coating 02/03/2014-07/25/2014	54.35	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	54.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Time Slice 5/19/2014-7/25/2014 Active Days: 50	54.35	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Coating 02/03/2014-07/25/2014	54.35	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05
Architectural Coating	54.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.05	0.75	0.00	0.01	0.00	0.01	0.00	0.00	0.00	98.05

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Paving 1/27/2014 - 2/28/2014 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

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NOX: 15%

The following mitigation measures apply to Phase: Building Construction 1/6/2014 - 5/16/2014 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 2/3/2014 - 7/25/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

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ROG: 40%

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\San Diego Corporate Center Phase 1 2 and 3 Construction.urb924

Project Name: Western Districts Phase 3 Construction

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2014 TOTALS (tons/year unmitigated)	5.87	1.13	1.98	0.00	0.01	0.07	0.08	0.00	0.06	0.07	322.37
2014 TOTALS (tons/year mitigated)	3.61	1.02	1.98	0.00	0.01	0.02	0.04	0.00	0.02	0.03	322.37
Percent Reduction	38.53	9.81	0.00	0.00	0.00	63.07	54.07	0.00	63.67	59.79	0.00

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2014	5.87	1.13	1.98	0.00	0.01	0.07	0.08	0.00	0.06	0.07	322.37
Building 01/06/2014-05/16/2014	0.18	0.96	1.81	0.00	0.01	0.05	0.06	0.00	0.05	0.05	296.83
Building Off Road Diesel	0.13	0.62	0.47	0.00	0.00	0.04	0.04	0.00	0.04	0.04	77.01
Building Vendor Trips	0.02	0.27	0.22	0.00	0.00	0.01	0.01	0.00	0.01	0.01	73.30
Building Worker Trips	0.04	0.07	1.12	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.52
Asphalt 01/27/2014-02/28/2014	0.03	0.17	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	19.41
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.03	0.16	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	15.90
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32
Coating 02/03/2014-07/25/2014	5.66	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.13
Architectural Coating	5.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.13

Phase Assumptions

Phase: Paving 1/27/2014 - 2/28/2014 - Default Paving Description

Acres to be Paved: 2

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/6/2014 - 5/16/2014 - Default Building Construction Description

Off-Road Equipment:

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1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 2/3/2014 - 7/25/2014 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2014	3.61	1.02	1.98	0.00	0.01	0.02	0.04	0.00	0.02	0.03	322.37
Building 01/06/2014-05/16/2014	0.18	0.87	1.81	0.00	0.01	0.02	0.03	0.00	0.02	0.02	296.83
Building Off Road Diesel	0.13	0.52	0.47	0.00	0.00	0.01	0.01	0.00	0.01	0.01	77.01
Building Vendor Trips	0.02	0.27	0.22	0.00	0.00	0.01	0.01	0.00	0.01	0.01	73.30
Building Worker Trips	0.04	0.07	1.12	0.00	0.01	0.00	0.01	0.00	0.00	0.01	146.52
Asphalt 01/27/2014-02/28/2014	0.03	0.15	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.41
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.03	0.14	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.90
Paving On Road Diesel	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.19
Paving Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.32
Coating 02/03/2014-07/25/2014	3.40	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.13
Architectural Coating	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.13

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Paving 1/27/2014 - 2/28/2014 - Default Paving Description

For Pavers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Pavers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Paving Equipment, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Paving Equipment, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rollers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

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For Rollers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 1/6/2014 - 5/16/2014 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Generator Sets, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Generator Sets, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Welders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Welders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 2/3/2014 - 7/25/2014 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

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For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 40%

5/26/2011 2:47:18 PM

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1.urb924

Project Name: ONE PASEO Phase 1

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

5/26/2011 2:47:18 PM

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.77	0.84	1.12	0.00	0.00	0.00	996.40
TOTALS (tons/year, mitigated)	0.49	0.66	0.89	0.00	0.00	0.00	797.27
Percent Reduction	36.36	21.43	20.54	NaN	NaN	NaN	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	8.06	11.11	83.04	0.10	18.54	3.59	9,823.26
TOTALS (tons/year, mitigated)	4.09	5.34	39.83	0.04	6.90	1.72	4,709.57
Percent Reduction	49.26	51.94	52.04	60.00	62.78	52.09	52.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	8.83	11.95	84.16	0.10	18.54	3.59	10,819.66
TOTALS (tons/year, mitigated)	4.58	6.00	40.72	0.04	6.90	1.72	5,506.84
Percent Reduction	48.13	49.79	51.62	60.00	62.78	52.09	49.10

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.83	0.70	0.00	0.00	0.00	995.64
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.03	0.01	0.42	0.00	0.00	0.00	0.76
Consumer Products	0.00						
Architectural Coatings	0.68						
TOTALS (tons/year, unmitigated)	0.77	0.84	1.12	0.00	0.00	0.00	996.40

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.66	0.56	0.00	0.00	0.00	796.51
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.03	0.00	0.33	0.00	0.00	0.00	0.76
Consumer Products	0.00						
Architectural Coatings	0.41						
TOTALS (tons/year, mitigated)	0.49	0.66	0.89	0.00	0.00	0.00	797.27

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	2.57	3.26	24.25	0.03	5.17	1.00	2,742.39
General office building	2.11	2.95	22.01	0.03	5.00	0.97	2,646.54
Office park	3.38	4.90	36.78	0.04	8.37	1.62	4,434.33
TOTALS (tons/year, unmitigated)	8.06	11.11	83.04	0.10	18.54	3.59	9,823.26
Less OnRoad Reduction	0.00	0.00	0.00	0.00	2.00	0.00	0.00
TOTALS (tons/year, unmitigated)	8.06	11.11	83.04	0.10	16.54	3.59	9,823.26

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	1.29	1.59	11.81	0.01	2.52	0.49	1,335.43
General office building	1.09	1.41	10.50	0.01	2.39	0.46	1,262.06
Office park	1.71	2.34	17.52	0.02	3.99	0.77	2,112.08
TOTALS (tons/year, mitigated)	4.09	5.34	39.83	0.04	8.90	1.72	4,709.57
Less OnRoad Reduction	0.00	0.00	0.00	0.00	2.00	0.00	0.00
TOTALS (tons/year, mitigated)	4.09	5.34	39.83	0.04	6.90	1.72	4,709.57

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

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Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Strip mall		40.00	1000 sq ft	100.65	4,026.00	16,414.97
General office building		10.00	1000 sq ft	245.00	2,450.00	15,890.83
Office park		13.01	1000 sq ft	291.00	3,785.91	26,592.67
					10,261.91	58,898.47

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Strip mall				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase2.urb924

Project Name: ONE PASEO Phase 2

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	15.88	6.72	11.15	0.00	0.03	0.03	8,095.61
TOTALS (lbs/day, mitigated)	13.52	5.38	8.92	0.00	0.03	0.03	6,478.73
Percent Reduction	14.86	19.94	20.00	NaN	0.00	0.00	19.97

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	70.17	94.91	730.42	0.87	171.24	33.12	92,217.03
TOTALS (lbs/day, mitigated)	37.80	48.20	371.61	0.43	44.13	12.85	46,930.41
Percent Reduction	46.13	49.22	49.12	50.57	74.23	61.20	49.11

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	86.05	101.63	741.57	0.87	171.27	33.15	100,312.64
TOTALS (lbs/day, mitigated)	51.32	53.58	380.53	0.43	44.16	12.88	53,409.14
Percent Reduction	40.36	47.28	48.69	50.57	74.22	61.15	46.76

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.49	6.64	4.97	0.00	0.01	0.01	8,084.37
Hearth - No Summer Emissions							
Landscape	0.49	0.08	6.18	0.00	0.02	0.02	11.24
Consumer Products	9.49						
Architectural Coatings	5.41						
TOTALS (lbs/day, unmitigated)	15.88	6.72	11.15	0.00	0.03	0.03	8,095.61

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.39	5.31	3.98	0.00	0.01	0.01	6,467.50
Hearth - No Summer Emissions							
Landscape	0.39	0.07	4.94	0.00	0.02	0.02	11.23
Consumer Products	9.49						
Architectural Coatings	3.25						
TOTALS (lbs/day, mitigated)	13.52	5.38	8.92	0.00	0.03	0.03	6,478.73

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	4.87	5.96	47.28	0.06	11.11	2.15	6,000.04
Regnl shop. center	36.74	49.98	377.62	0.44	88.14	17.05	47,403.19
General office building	11.03	14.65	114.14	0.14	26.93	5.21	14,507.21
Office park	17.53	24.32	191.38	0.23	45.06	8.71	24,306.59
TOTALS (lbs/day, unmitigated)	70.17	94.91	730.42	0.87	171.24	33.12	92,217.03
Less OnRoad Reduction	0.00	0.00	0.00	0.00	43.00	4.00	0.00
TOTALS (lbs/day, unmitigated)	70.17	94.91	730.42	0.87	128.24	29.12	92,217.03

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	4.68	5.66	44.91	0.05	10.55	2.04	5,698.93
Regnl shop. center	18.04	23.94	180.84	0.21	42.21	8.16	22,700.63
General office building	5.93	7.00	54.54	0.06	12.87	2.49	6,932.18
Office park	9.15	11.60	91.32	0.11	21.50	4.16	11,598.67
TOTALS (lbs/day, mitigated)	37.80	48.20	371.61	0.43	87.13	16.85	46,930.41
Less OnRoad Reduction	0.00	0.00	0.00	0.00	43.00	4.00	0.00
TOTALS (lbs/day, mitigated)	37.80	48.20	371.61	0.43	44.13	12.85	46,930.41

Operational Settings:

Includes correction for passby trips

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Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 26.07   Nonresidential Trip % Reduction: 1.76

Analysis Year: 2015 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	12.12	4.44	dwelling units	194.00	860.50	6,441.07
Regnl shop. center		65.11	1000 sq ft	166.26	10,825.89	51,102.87
General office building		9.82	1000 sq ft	245.00	2,406.91	15,611.33
Office park		12.78	1000 sq ft	291.00	3,719.32	26,124.95
					17,812.62	99,280.22

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase2.urb924

Project Name: ONE PASEO Phase 2

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	2.85	1.22	1.47	0.00	0.00	0.00	1,476.79
TOTALS (tons/year, mitigated)	2.43	0.98	1.18	0.00	0.00	0.00	1,181.71
Percent Reduction	14.74	19.67	19.73	NaN	NaN	NaN	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	13.49	18.79	139.30	0.15	31.25	6.04	16,527.06
TOTALS (tons/year, mitigated)	7.13	9.55	70.82	0.08	8.10	3.07	8,410.86
Percent Reduction	47.15	49.18	49.16	46.67	74.08	49.17	49.11

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	16.34	20.01	140.77	0.15	31.25	6.04	18,003.85
TOTALS (tons/year, mitigated)	9.56	10.53	72.00	0.08	8.10	3.07	9,592.57
Percent Reduction	41.49	47.38	48.85	46.67	74.08	49.17	46.72

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.09	1.21	0.91	0.00	0.00	0.00	1,475.40
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Landscape	0.04	0.01	0.56	0.00	0.00	0.00	1.01
Consumer Products	1.73						
Architectural Coatings	0.99						
TOTALS (tons/year, unmitigated)	2.85	1.22	1.47	0.00	0.00	0.00	1,476.79

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.07	0.97	0.73	0.00	0.00	0.00	1,180.32
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Landscape	0.04	0.01	0.45	0.00	0.00	0.00	1.01
Consumer Products	1.73						
Architectural Coatings	0.59						
TOTALS (tons/year, mitigated)	2.43	0.98	1.18	0.00	0.00	0.00	1,181.71

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	0.89	1.18	8.93	0.01	2.03	0.39	1,075.38
Regnl shop. center	7.20	9.89	72.61	0.08	16.09	3.11	8,495.35
General office building	2.08	2.90	21.63	0.02	4.91	0.95	2,599.99
Office park	3.32	4.82	36.13	0.04	8.22	1.59	4,356.34
TOTALS (tons/year, unmitigated)	13.49	18.79	139.30	0.15	31.25	6.04	16,527.06
Less OnRoad Reduction	0.00	0.00	0.00	0.00	7.80	0.00	0.00
TOTALS (tons/year, unmitigated)	13.49	18.79	139.30	0.15	23.45	6.04	16,527.06

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	0.85	1.12	8.48	0.01	1.93	0.37	1,021.41
Regnl shop. center	3.51	4.74	34.77	0.04	7.70	1.49	4,068.29
General office building	1.08	1.39	10.33	0.01	2.35	0.45	1,242.39
Office park	1.69	2.30	17.24	0.02	3.92	0.76	2,078.77
TOTALS (tons/year, mitigated)	7.13	9.55	70.82	0.08	15.90	3.07	8,410.86
Less OnRoad Reduction	0.00	0.00	0.00	0.00	7.80	0.00	0.00
TOTALS (tons/year, mitigated)	7.13	9.55	70.82	0.08	8.10	3.07	8,410.86

Operational Settings:

Includes correction for passby trips

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Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 26.07 Nonresidential Trip % Reduction: 1.76

Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	12.12	4.44	dwelling units	194.00	860.50	6,441.07
Regnl shop. center		65.11	1000 sq ft	166.26	10,825.89	51,102.87
General office building		9.82	1000 sq ft	245.00	2,406.91	15,611.33
Office park		12.78	1000 sq ft	291.00	3,719.32	26,124.95
					17,812.62	99,280.22

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1.urb924

Project Name: ONE PASEO Phase 1

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	4.43	4.61	8.46	0.00	0.03	0.03	5,463.97
TOTALS (lbs/day, mitigated)	2.80	3.69	6.77	0.00	0.02	0.02	4,372.85
Percent Reduction	36.79	19.96	19.98	NaN	33.33	33.33	19.97

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	42.17	56.15	436.48	0.51	101.60	19.65	54,809.58
TOTALS (lbs/day, mitigated)	21.94	26.93	209.31	0.25	26.71	5.92	26,277.41
Percent Reduction	47.97	52.04	52.05	50.98	73.71	69.87	52.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	46.60	60.76	444.94	0.51	101.63	19.68	60,273.55
TOTALS (lbs/day, mitigated)	24.74	30.62	216.08	0.25	26.73	5.94	30,650.26
Percent Reduction	46.91	49.61	51.44	50.98	73.70	69.82	49.15

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.33	4.55	3.82	0.00	0.01	0.01	5,455.54
Hearth - No Summer Emissions							
Landscape	0.37	0.06	4.64	0.00	0.02	0.02	8.43
Consumer Products	0.00						
Architectural Coatings	3.73						
TOTALS (lbs/day, unmitigated)	4.43	4.61	8.46	0.00	0.03	0.03	5,463.97

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.26	3.64	3.06	0.00	0.01	0.01	4,364.43
Hearth - No Summer Emissions							
Landscape	0.30	0.05	3.71	0.00	0.01	0.01	8.42
Consumer Products	0.00						
Architectural Coatings	2.24						
TOTALS (lbs/day, mitigated)	2.80	3.69	6.77	0.00	0.02	0.02	4,372.85

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	13.14	16.49	125.50	0.14	28.32	5.48	15,300.89
General office building	11.21	14.91	116.18	0.14	27.41	5.30	14,766.93
Office park	17.82	24.75	194.80	0.23	45.87	8.87	24,741.76
TOTALS (lbs/day, unmitigated)	42.17	56.15	436.48	0.51	101.60	19.65	54,809.58
Less OnRoad Reduction	0.00	0.00	0.00	0.00	22.00	3.50	0.00
TOTALS (lbs/day, unmitigated)	42.17	56.15	436.48	0.51	79.60	16.15	54,809.58

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	6.67	8.03	61.11	0.07	13.79	2.67	7,450.89
General office building	6.00	7.11	55.41	0.07	13.07	2.53	7,041.95
Office park	9.27	11.79	92.79	0.11	21.85	4.22	11,784.57
TOTALS (lbs/day, mitigated)	21.94	26.93	209.31	0.25	48.71	9.42	26,277.41
Less OnRoad Reduction	0.00	0.00	0.00	0.00	22.00	3.50	0.00
TOTALS (lbs/day, mitigated)	21.94	26.93	209.31	0.25	26.71	5.92	26,277.41

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

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Analysis Year: 2015 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Strip mall		40.00	1000 sq ft	100.65	4,026.00	16,414.97
General office building		10.00	1000 sq ft	245.00	2,450.00	15,890.83
Office park		13.01	1000 sq ft	291.00	3,785.91	26,592.67
					10,261.91	58,898.47

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Strip mall				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase1.urb924

Project Name: ONE PASEO Phase 1

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.77	0.84	1.12	0.00	0.00	0.00	996.40
TOTALS (tons/year, mitigated)	0.49	0.66	0.89	0.00	0.00	0.00	797.27
Percent Reduction	36.36	21.43	20.54	NaN	NaN	NaN	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	8.06	11.11	83.04	0.10	18.54	3.59	9,823.26
TOTALS (tons/year, mitigated)	4.09	5.34	39.83	0.04	8.90	1.72	4,709.57
Percent Reduction	49.26	51.94	52.04	60.00	52.00	52.09	52.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	8.83	11.95	84.16	0.10	18.54	3.59	10,819.66
TOTALS (tons/year, mitigated)	4.58	6.00	40.72	0.04	8.90	1.72	5,506.84
Percent Reduction	48.13	49.79	51.62	60.00	52.00	52.09	49.10

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.83	0.70	0.00	0.00	0.00	995.64
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.03	0.01	0.42	0.00	0.00	0.00	0.76
Consumer Products	0.00						
Architectural Coatings	0.68						
TOTALS (tons/year, unmitigated)	0.77	0.84	1.12	0.00	0.00	0.00	996.40

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.05	0.66	0.56	0.00	0.00	0.00	796.51
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscape	0.03	0.00	0.33	0.00	0.00	0.00	0.76
Consumer Products	0.00						
Architectural Coatings	0.41						
TOTALS (tons/year, mitigated)	0.49	0.66	0.89	0.00	0.00	0.00	797.27

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	2.57	3.26	24.25	0.03	5.17	1.00	2,742.39
General office building	2.11	2.95	22.01	0.03	5.00	0.97	2,646.54
Office park	3.38	4.90	36.78	0.04	8.37	1.62	4,434.33
TOTALS (tons/year, unmitigated)	8.06	11.11	83.04	0.10	18.54	3.59	9,823.26

Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Strip mall	1.29	1.59	11.81	0.01	2.52	0.49	1,335.43
General office building	1.09	1.41	10.50	0.01	2.39	0.46	1,262.06
Office park	1.71	2.34	17.52	0.02	3.99	0.77	2,112.08
TOTALS (tons/year, mitigated)	4.09	5.34	39.83	0.04	8.90	1.72	4,709.57

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00   Nonresidential Trip % Reduction: 0.00

Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Strip mall		40.00	1000 sq ft	100.65	4,026.00	16,414.97
General office building		10.00	1000 sq ft	245.00	2,450.00	15,890.83
Office park		13.01	1000 sq ft	291.00	3,785.91	26,592.67
					10,261.91	58,898.47

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Strip mall				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\MSlavick.HELIXLM\Application Data\Urbemis\Version9a\Projects\PASEOPhase3.urb924

Project Name: ONE PASEO Phase 3

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	40.43	11.80	17.18	0.00	0.05	0.05	14,385.22
TOTALS (lbs/day, mitigated)	36.48	9.44	13.75	0.00	0.05	0.05	11,511.54
Percent Reduction	9.77	20.00	19.97	NaN	0.00	0.00	19.98

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	86.41	100.75	850.67	1.33	265.10	50.95	142,739.13
TOTALS (lbs/day, mitigated)	49.97	54.51	462.16	0.72	73.93	14.67	77,536.52
Percent Reduction	42.17	45.90	45.67	45.86	72.11	71.21	45.68

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	126.84	112.55	867.85	1.33	265.15	51.00	157,124.35
TOTALS (lbs/day, mitigated)	86.45	63.95	475.91	0.72	73.98	14.72	89,048.06
Percent Reduction	31.84	43.18	45.16	45.86	72.10	71.14	43.33

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.87	11.68	7.91	0.00	0.02	0.02	14,368.37
Hearth - No Summer Emissions							
Landscape	0.74	0.12	9.27	0.00	0.03	0.03	16.85
Consumer Products	29.75						
Architectural Coatings	9.07						
TOTALS (lbs/day, unmitigated)	40.43	11.80	17.18	0.00	0.05	0.05	14,385.22

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.70	9.34	6.33	0.00	0.02	0.02	11,494.69
Hearth - No Summer Emissions							
Landscape	0.59	0.10	7.42	0.00	0.03	0.03	16.85
Consumer Products	29.75						
Architectural Coatings	5.44						
TOTALS (lbs/day, mitigated)	36.48	9.44	13.75	0.00	0.05	0.05	11,511.54

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 35% to 0%

Percentage of residences with wood fireplaces changed from 10% to 0%

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Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	13.08	14.02	122.48	0.19	37.98	7.30	20,527.36
Junior college (2 yrs)	7.79	9.72	79.95	0.13	26.40	5.06	14,084.39
Hotel	4.63	4.96	41.27	0.06	12.88	2.47	6,922.58
Regnl shop. center	38.47	45.56	378.37	0.59	116.75	22.45	62,844.32
General office building	8.69	9.96	85.40	0.13	26.59	5.11	14,337.82
Office park	13.75	16.53	143.20	0.23	44.50	8.56	24,022.66
TOTALS (lbs/day, unmitigated)	86.41	100.75	850.67	1.33	265.10	50.95	142,739.13
Less OnRoad Reduction	0.00	0.00	0.00	0.00	70.00	13.00	0.00
TOTALS (lbs/day, unmitigated)	86.41	100.75	850.67	1.33	195.10	37.95	142,739.13

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Operational Mitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Condo/townhouse general	12.56	13.32	116.33	0.18	36.07	6.94	19,497.20
Junior college (2 yrs)	4.20	4.61	37.97	0.06	12.54	2.40	6,688.79
Hotel	2.54	2.36	19.60	0.03	6.11	1.18	3,287.59
Regnl shop. center	18.78	21.64	179.69	0.28	55.45	10.66	29,845.25
General office building	4.69	4.73	40.56	0.06	12.63	2.43	6,809.14
Office park	7.20	7.85	68.01	0.11	21.13	4.06	11,408.55
TOTALS (lbs/day, mitigated)	49.97	54.51	462.16	0.72	143.93	27.67	77,536.52
Less OnRoad Reduction	0.00	0.00	0.00	0.00	70.00	13.00	0.00
TOTALS (lbs/day, mitigated)	49.97	54.51	462.16	0.72	73.93	14.67	77,536.52

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 19.24   Nonresidential Trip % Reduction: 2.84

Analysis Year: 2020 Temperature (F): 75 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Condo/townhouse general	38.00	4.85	dwelling units	608.00	2,946.00	22,051.58
Junior college (2 yrs)		9.72	students	220.00	2,137.52	15,342.77
Hotel		9.72	rooms	150.00	1,457.40	7,477.56

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Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Regnl shop. center		65.28	1000 sq ft	220.00	14,361.99	67,794.76
General office building		9.72	1000 sq ft	245.00	2,380.42	15,439.52
Office park		12.64	1000 sq ft	291.00	3,678.39	25,837.42
					26,961.72	153,943.61

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.5	0.2	99.6	0.2
Light Truck < 3750 lbs	10.8	0.9	95.4	3.7
Light Truck 3751-5750 lbs	21.9	0.5	99.5	0.0
Med Truck 5751-8500 lbs	9.7	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs	0.7	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	3.5	48.6	51.4	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

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Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Junior college (2 yrs)				5.0	2.5	92.5
Hotel				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
General office building				35.0	17.5	47.5
Office park				48.0	24.0	28.0

```
            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   1

                JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM NP
                RUN: Hour 1            (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *                EF     H     W
  DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*------------------------------
-
 A. NF          *     5  -450     5  -150 *  AG   1323   2.9     .0
15.0
 B. NA          *     5  -150     5     0 *  AG    950   4.3     .0
13.5
 C. ND          *     2     0     2   150 *  AG   1175   4.5     .0
9.9
 D. NE          *     2   150     2   450 *  AG   1175   2.9     .0
10.5
 E. SF          *    -7   450    -7   150 *  AG      0   2.9     .0
10.5
 F. SA          *    -7   150    -7     0 *  AG      0   4.0     .0
9.9
 G. SD          *    -7     0    -7  -150 *  AG      0   2.8     .0
9.9
 H. SE          *    -7  -150    -7  -450 *  AG      0   2.9     .0
10.5
 I. WF          *   450     7   150     7 *  AG   2318   2.9     .0
24.0
 J. WA          *   150     7     0     7 *  AG   2318   3.5     .0
13.5
 K. WD          *     0     0  -150     0 *  AG   1799   2.5     .0
13.5
 L. WE          *  -150     0  -450     0 *  AG   1799   2.9     .0
19.5
```

M. EF	*	-450	-2	-150	-2	*	AG	1488	2.9	.0	24.0
N. EA	*	-150	-2	0	-2	*	AG	1264	3.2	.0	9.9
O. ED	*	0	-11	150	-11	*	AG	2155	2.7	.0	9.9
P. EE	*	150	-11	450	-11	*	AG	2155	2.9	.0	15.0
Q. NL	*	0	0	2	-150	*	AG	373	4.0	.0	9.9
R. SL	*	0	0	-7	150	*	AG	0	4.0	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.0	.0	9.9
T. EL	*	0	0	-150	0	*	AG	224	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	1.8	.1	.6	.3	.0	.0	.0	.0	.0
2. SE3	276.	1.7	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.4	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	92.	2.0	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.3	.1	.6	.0	.0	.0	.0	.0	.0
6. SE7	301.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.7	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.4	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
2. SE3	.0	.0	.3	.2	.1	.3	.5	.0	.0	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0
4. NW3	.3	1.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.3	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.2	.4	.0	.0	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0
8. NW7	.2	1.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
   BRG= WORST CASE            VD=   .0 CM/S
  CLAS=     7 (G)             VS=   .0 CM/S
  MIXH= 1000. M              AMB=   .0 PPM
 SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1419	2.9	.0	15.0
B. NA	5	-150	5	0	AG	804	4.2	.0	13.5
C. ND	2	0	2	150	AG	1106	4.5	.0	9.9
D. NE	2	150	2	450	AG	1106	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	1993	2.9	.0	24.0
J. WA	150	7	0	7	AG	1993	3.4	.0	13.5
K. WD	0	0	-150	0	AG	1761	2.5	.0	13.5
L. WE	-150	0	-450	0	AG	1761	2.9	.0	19.5

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 M. EF            *  -450    -2  -150    -2 *  AG   1698   2.9      .0
24.0
 N. EA            *  -150    -2     0    -2 *  AG   1463   3.4      .0
9.9
 O. ED            *     0   -11   150   -11 *  AG   2243   2.7      .0
9.9
 P. EE            *   150   -11   450   -11 *  AG   2243   2.9      .0
15.0
 Q. NL            *     0     0     2  -150 *  AG    615   4.2      .0
9.9
 R. SL            *     0     0    -7   150 *  AG      0   4.0      .0
9.9
 S. WL            *     0     0   150     0 *  AG      0   3.0      .0
9.9
 T. EL            *     0     0  -150     0 *  AG    235   3.0      .0
9.9
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	1.8	.2	.5	.3	.0	.0	.0	.0	.0
2. SE3	276.	1.8	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.4	.0	.1	.0	.0	.0	.0	.0	.0
4. NW3	93.	1.7	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.2	.1	.5	.0	.0	.0	.0	.0	.0
6. SE7	301.	1.3	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	95.	1.6	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.3	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0
2. SE3	.0	.0	.3	.2	.1	.4	.5	.0	.1	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.7	.1	.1	.0	.0	.0
4. NW3	.2	1.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.3	.0	.0	.0	.0	.1	.0	.2	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.3	.5	.0	.1	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.4	.2	.1	.0	.0	.0
8. NW7	.2	.9	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1507	2.9	.0	15.0
B. NA	5	-150	5	0	AG	1134	4.5	.0	13.5
C. ND	2	0	2	150	AG	1203	4.5	.0	9.9
D. NE	2	150	2	450	AG	1203	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	2411	2.9	.0	24.0
J. WA	150	7	0	7	AG	2411	3.5	.0	13.5
K. WD	0	0	-150	0	AG	1864	2.5	.0	13.5
L. WE	-150	0	-450	0	AG	1864	2.9	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	1702	2.9	.0	24.0
N. EA	*	-150	-2	0	-2	*	AG	1478	3.4	.0	9.9
O. ED	*	0	-11	150	-11	*	AG	2553	2.7	.0	9.9
P. EE	*	150	-11	450	-11	*	AG	2553	2.9	.0	15.0
Q. NL	*	0	0	2	-150	*	AG	373	4.0	.0	9.9
R. SL	*	0	0	-7	150	*	AG	0	4.0	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.0	.0	9.9
T. EL	*	0	0	-150	0	*	AG	224	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.0	.2	.8	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.0	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.6	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	93.	2.0	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.5	.1	.7	.0	.0	.0	.0	.0	.0
6. SE7	302.	1.4	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*	CONC/LINK (PPM)											
1. NE3	*	.0	.4	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
2. SE3	*	.0	.0	.3	.2	.1	.4	.5	.0	.0	.0	.0	.0
3. SW3	*	.3	.0	.0	.0	.0	.0	.8	.1	.0	.0	.0	.0
4. NW3	*	.3	1.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
5. NE7	*	.0	.3	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0
6. SE7	*	.0	.0	.2	.0	.0	.3	.5	.0	.0	.0	.0	.0
7. SW7	*	.3	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0
8. NW7	*	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

```
             CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                      JUNE 1989 VERSION
                      PAGE   1

                 JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM WP
                 RUN: Hour 1           (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *               EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
-
 A. NF           *     5  -450     5  -150 *  AG   1563   2.9     .0
15.0
 B. NA           *     5  -150     5     0 *  AG    948   4.3     .0
13.5
 C. ND           *     2     0     2   150 *  AG   1229   4.5     .0
9.9
 D. NE           *     2   150     2   450 *  AG   1229   2.9     .0
10.5
 E. SF           *    -7   450    -7   150 *  AG      0   2.9     .0
10.5
 F. SA           *    -7   150    -7     0 *  AG      0   4.0     .0
9.9
 G. SD           *    -7     0    -7  -150 *  AG      0   2.7     .0
9.9
 H. SE           *    -7  -150    -7  -450 *  AG      0   2.9     .0
10.5
 I. WF           *   450     7   150     7 *  AG   2403   2.9     .0
24.0
 J. WA           *   150     7     0     7 *  AG   2403   3.5     .0
13.5
 K. WD           *     0     0  -150     0 *  AG   2048   2.6     .0
13.5
 L. WE           *  -150     0  -450     0 *  AG   2048   2.9     .0
19.5
```

M. EF	*	-450	-2	-150	-2	*	AG	1866	2.9	.0	24.0
N. EA	*	-150	-2	0	-2	*	AG	1631	3.5	.0	9.9
O. ED	*	0	-11	150	-11	*	AG	2555	2.7	.0	9.9
P. EE	*	150	-11	450	-11	*	AG	2555	2.9	.0	15.0
Q. NL	*	0	0	2	-150	*	AG	615	4.3	.0	9.9
R. SL	*	0	0	-7	150	*	AG	0	4.0	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.0	.0	9.9
T. EL	*	0	0	-150	0	*	AG	235	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.0	.2	.6	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.1	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.6	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	93.	2.0	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.4	.2	.5	.0	.0	.0	.0	.0	.0
6. SE7	301.	1.5	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB RAMPS DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM)										
	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.4	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0
2. SE3	*	.0	.0	.3	.2	.2	.4	.5	.0	.1	.0	.0	.0
3. SW3	*	.3	.0	.0	.0	.0	.0	.8	.1	.1	.0	.0	.0
4. NW3	*	.3	1.2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
5. NE7	*	.0	.3	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
6. SE7	*	.0	.0	.3	.0	.0	.3	.5	.0	.1	.0	.0	.0
7. SW7	*	.3	.0	.0	.0	.0	.0	.5	.2	.1	.0	.0	.0
8. NW7	*	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1518	2.9	.0	15.0
B. NA	5	-150	5	0	AG	1134	4.5	.0	13.5
C. ND	2	0	2	150	AG	1210	4.5	.0	9.9
D. NE	2	150	2	450	AG	1210	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	2426	2.9	.0	24.0
J. WA	150	7	0	7	AG	2426	3.5	.0	13.5
K. WD	0	0	-150	0	AG	1890	2.5	.0	13.5
L. WE	-150	0	-450	0	AG	1890	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	1694	2.9	.0	24.0
N. EA	-150	-2	0	-2	AG	1463	3.4	.0	9.9
O. ED	0	-11	150	-11	AG	2538	2.7	.0	9.9
P. EE	150	-11	450	-11	AG	2538	2.9	.0	15.0
Q. NL	0	0	2	-150	AG	384	4.0	.0	9.9
R. SL	0	0	-7	150	AG	0	4.0	.0	9.9
S. WL	0	0	150	0	AG	0	3.0	.0	9.9
T. EL	0	0	-150	0	AG	231	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.0	.2	.8	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.0	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.6	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	93.	2.0	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.5	.1	.7	.0	.0	.0	.0	.0	.0
6. SE7	302.	1.4	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.4	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
2. SE3	.0	.0	.3	.2	.1	.4	.5	.0	.0	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.8	.1	.0	.0	.0	.0
4. NW3	.3	1.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
5. NE7	.0	.3	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.3	.5	.0	.0	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0
8. NW7	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 PM Near
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1531	2.9	.0	15.0
B. NA	5	-150	5	0	AG	882	4.3	.0	13.5
C. ND	2	0	2	150	AG	1235	4.5	.0	9.9
D. NE	2	150	2	450	AG	1235	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	2420	2.9	.0	24.0
J. WA	150	7	0	7	AG	2420	3.5	.0	13.5
K. WD	0	0	-150	0	AG	2100	2.6	.0	13.5
L. WE	-150	0	-450	0	AG	2100	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	1822	2.9	.0	24.0
N. EA	-150	-2	0	-2	AG	1580	3.5	.0	9.9
O. ED	0	-11	150	-11	AG	2438	2.7	.0	9.9
P. EE	150	-11	450	-11	AG	2438	2.9	.0	15.0
Q. NL	0	0	2	-150	AG	649	4.3	.0	9.9
R. SL	0	0	-7	150	AG	0	4.0	.0	9.9
S. WL	0	0	150	0	AG	0	3.0	.0	9.9
T. EL	0	0	-150	0	AG	242	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 PM Near
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.0	.2	.6	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.0	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.5	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	92.	2.0	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.4	.2	.5	.0	.0	.0	.0	.0	.0
6. SE7	301.	1.4	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.2	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   3

     JOB: I-5 NB DEL MAR HEIGHTS RD Ph 1 PM Near
     RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
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IV. MODEL RESULTS (WORST CASE WIND ANGLE)   (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.4	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0
2. SE3	.0	.0	.3	.2	.2	.4	.5	.0	.1	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.7	.1	.1	.0	.0	.0
4. NW3	.3	1.3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.3	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
6. SE7	.0	.0	.3	.0	.0	.3	.5	.0	.1	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.4	.2	.1	.0	.0	.0
8. NW7	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S
BRG= WORST CASE
CLAS= 7 (G)
MIXH= 1000. M
SIGTH= 5. DEGREES

Z0= 100. CM
VD= .0 CM/S
VS= .0 CM/S
AMB= .0 PPM
TEMP= 15.6 DEGREE (C)

ALT= 0. (M)

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1521	2.9	.0	15.0
B. NA	5	-150	5	0	AG	1137	4.5	.0	13.5
C. ND	2	0	2	150	AG	1233	4.5	.0	9.9
D. NE	2	150	2	450	AG	1233	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	2468	2.9	.0	24.0
J. WA	150	7	0	7	AG	2468	3.5	.0	13.5
K. WD	0	0	-150	0	AG	1909	2.5	.0	13.5
L. WE	-150	0	-450	0	AG	1909	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	1724	2.9	.0	24.0
N. EA	-150	-2	0	-2	AG	1493	3.4	.0	9.9
O. ED	0	-11	150	-11	AG	2571	2.7	.0	9.9
P. EE	150	-11	450	-11	AG	2571	2.9	.0	15.0
Q. NL	0	0	2	-150	AG	384	4.0	.0	9.9
R. SL	0	0	-7	150	AG	0	4.0	.0	9.9
S. WL	0	0	150	0	AG	0	3.0	.0	9.9
T. EL	0	0	-150	0	AG	231	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.0	.2	.8	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.0	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.6	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	93.	2.1	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.5	.1	.7	.0	.0	.0	.0	.0	.0
6. SE7	302.	1.4	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 AM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.4	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
2. SE3	.0	.0	.3	.2	.1	.4	.5	.0	.0	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.8	.1	.0	.0	.0	.0
4. NW3	.3	1.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
5. NE7	.0	.4	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.3	.5	.0	.0	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0
8. NW7	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 PM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1610	2.9	.0	15.0
B. NA	5	-150	5	0	AG	961	4.3	.0	13.5
C. ND	2	0	2	150	AG	1271	4.5	.0	9.9
D. NE	2	150	2	450	AG	1271	2.9	.0	10.5
E. SF	-7	450	-7	150	AG	0	2.9	.0	10.5
F. SA	-7	150	-7	0	AG	0	4.0	.0	9.9
G. SD	-7	0	-7	-150	AG	0	2.7	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	2.9	.0	10.5
I. WF	450	7	150	7	AG	2460	2.9	.0	24.0
J. WA	150	7	0	7	AG	2460	3.5	.0	13.5
K. WD	0	0	-150	0	AG	2104	2.6	.0	13.5
L. WE	-150	0	-450	0	AG	2104	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	1913	2.9	.0	24.0
N. EA	-150	-2	0	-2	AG	1671	3.5	.0	9.9
O. ED	0	-11	150	-11	AG	2608	2.7	.0	9.9
P. EE	150	-11	450	-11	AG	2608	2.9	.0	15.0
Q. NL	0	0	2	-150	AG	649	4.3	.0	9.9
R. SL	0	0	-7	150	AG	0	4.0	.0	9.9
S. WL	0	0	150	0	AG	0	3.0	.0	9.9
T. EL	0	0	-150	0	AG	242	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 PM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	2.1	.2	.6	.3	.0	.0	.0	.0	.0
2. SE3	276.	2.1	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.6	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	93.	2.1	.0	.0	.2	.0	.0	.0	.0	.0
5. NE7	184.	1.5	.2	.6	.0	.0	.0	.0	.0	.0
6. SE7	301.	1.5	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.3	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	94.	1.8	.0	.0	.2	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD Ph 2 PM Near T
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.4	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0
2. SE3	.0	.0	.3	.2	.2	.4	.6	.0	.1	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.8	.1	.1	.0	.0	.0
4. NW3	.3	1.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0
5. NE7	.0	.4	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0
6. SE7	.0	.0	.3	.0	.0	.3	.5	.0	.1	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.5	.2	.1	.0	.0	.0
8. NW7	.2	1.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB Del Mar Heights Rd 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1570	1.2	.0	15.0
B. NA	5	-150	5	0	AG	1170	2.1	.0	13.5
C. ND	2	0	2	150	AG	1230	2.1	.0	9.9
D. NE	2	150	2	450	AG	1230	1.2	.0	10.5
E. SF	-7	450	-7	150	AG	0	1.2	.0	10.5
F. SA	-7	150	-7	0	AG	0	1.9	.0	9.9
G. SD	-7	0	-7	-150	AG	0	1.4	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	1.2	.0	10.5
I. WF	450	7	150	7	AG	2650	1.2	.0	24.0
J. WA	150	7	0	7	AG	2650	1.8	.0	13.5
K. WD	0	0	-150	0	AG	2250	1.3	.0	13.5
L. WE	-150	0	-450	0	AG	2250	1.2	.0	19.5

M. EF	* -450	-2	-150	-2 *	AG	1950	1.2	.0	24.0
N. EA	* -150	-2	0	-2 *	AG	1580	1.7	.0	9.9
O. ED	* 0	-11	150	-11 *	AG	2690	1.4	.0	9.9
P. EE	* 150	-11	450	-11 *	AG	2690	1.2	.0	15.0
Q. NL	* 0	0	2	-150 *	AG	400	1.9	.0	9.9
R. SL	* 0	0	-7	150 *	AG	0	1.9	.0	9.9
S. WL	* 0	0	150	0 *	AG	0	1.5	.0	9.9
T. EL	* 0	0	-150	0 *	AG	370	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB Del Mar Heights Rd 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	1.0	.0	.4	.1	.0	.0	.0	.0	.0
2. SE3	277.	1.0	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	83.	.8	.0	.1	.0	.0	.0	.0	.0	.0
4. NW3	92.	1.0	.0	.0	.1	.0	.0	.0	.0	.0
5. NE7	184.	.7	.0	.3	.0	.0	.0	.0	.0	.0
6. SE7	301.	.8	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	81.	.6	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	95.	.9	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB Del Mar Heights Rd 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
2. SE3	.0	.0	.2	.0	.0	.2	.3	.0	.0	.0	.0	.0
3. SW3	.1	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
4. NW3	.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.1	.0	.0	.1	.3	.0	.0	.0	.0	.0
7. SW7	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
8. NW7	.0	.6	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S            Z0= 100. CM            ALT=     0. (M)
  BRG= WORST CASE           VD=   .0 CM/S
 CLAS=     7 (G)            VS=   .0 CM/S
 MIXH= 1000. M             AMB=   .0 PPM
SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1510	1.2	.0	15.0
B. NA	5	-150	5	0	AG	880	2.0	.0	13.5
C. ND	2	0	2	150	AG	1380	2.1	.0	9.9
D. NE	2	150	2	450	AG	1380	1.2	.0	10.5
E. SF	-7	450	-7	150	AG	0	1.2	.0	10.5
F. SA	-7	150	-7	0	AG	0	1.9	.0	9.9
G. SD	-7	0	-7	-150	AG	0	1.4	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	1.2	.0	10.5
I. WF	450	7	150	7	AG	1940	1.2	.0	24.0
J. WA	150	7	0	7	AG	1940	1.6	.0	13.5
K. WD	0	0	-150	0	AG	1970	1.3	.0	13.5
L. WE	-150	0	-450	0	AG	1970	1.2	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2383	1.2	.0	24.0
N. EA	*	-150	-2	0	-2	*	AG	1633	1.7	.0	9.9
O. ED	*	0	-11	150	-11	*	AG	2483	1.4	.0	9.9
P. EE	*	150	-11	450	-11	*	AG	2483	1.2	.0	15.0
Q. NL	*	0	0	2	-150	*	AG	630	2.0	.0	9.9
R. SL	*	0	0	-7	150	*	AG	0	1.9	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	1.5	.0	9.9
T. EL	*	0	0	-150	0	*	AG	750	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	184.	.9	.0	.3	.2	.0	.0	.0	.0	.0
2. SE3	277.	1.0	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	84.	.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	93.	.8	.0	.0	.1	.0	.0	.0	.0	.0
5. NE7	260.	.5	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	301.	.7	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	83.	.5	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	95.	.7	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*					CONC/LINK (PPM)							
1. NE3	*	.0	.2	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
2. SE3	*	.0	.0	.2	.0	.0	.2	.3	.0	.0	.0	.0	.0
3. SW3	*	.1	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
4. NW3	*	.0	.5	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. NE7	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.1	.0	.0	.1	.3	.0	.0	.0	.0	.0
7. SW7	*	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
8. NW7	*	.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0

```
           CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                    JUNE 1989 VERSION
                    PAGE   1

               JOB: I-5 NB DEL MAR HEIGHTS RD 2030 AM WP
               RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *                EF     H     W
  DESCRIPTION   *   X1     Y1     X2     Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
-
 A. NF           *     5  -450      5  -150 *  AG   1776   1.2     .0
15.0
 B. NA           *     5  -150      5     0 *  AG   1376   2.1     .0
13.5
 C. ND           *     2     0      2   150 *  AG   1275   2.1     .0
9.9
 D. NE           *     2   150      2   450 *  AG   1275   1.2     .0
10.5
 E. SF           *    -7   450     -7   150 *  AG      0   1.2     .0
10.5
 F. SA           *    -7   150     -7     0 *  AG      0   1.9     .0
9.9
 G. SD           *    -7     0     -7  -150 *  AG      0   1.4     .0
9.9
 H. SE           *    -7  -150     -7  -450 *  AG      0   1.2     .0
10.5
 I. WF           *   450     7    150     7 *  AG   2800   1.2     .0
24.0
 J. WA           *   150     7      0     7 *  AG   2800   1.8     .0
13.5
 K. WD           *     0     0   -150     0 *  AG   2355   1.3     .0
13.5
 L. WE           *  -150     0   -450     0 *  AG   2355   1.2     .0
19.5
```

M. EF	* -450	-2	-150	-2 *	AG	2190	1.2	.0	24.0
N. EA	* -150	-2	0	-2 *	AG	1820	1.8	.0	9.9
O. ED	* 0	-11	150	-11 *	AG	3136	1.4	.0	9.9
P. EE	* 150	-11	450	-11 *	AG	3136	1.2	.0	15.0
Q. NL	* 0	0	2	-150 *	AG	400	1.9	.0	9.9
R. SL	* 0	0	-7	150 *	AG	0	1.9	.0	9.9
S. WL	* 0	0	150	0 *	AG	0	1.5	.0	9.9
T. EL	* 0	0	-150	0 *	AG	370	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	1.1	.0	.4	.2	.0	.0	.0	.0	.0
2. SE3	277.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	83.	.9	.0	.1	.0	.0	.0	.0	.0	.0
4. NW3	93.	1.1	.0	.0	.1	.0	.0	.0	.0	.0
5. NE7	184.	.8	.0	.4	.0	.0	.0	.0	.0	.0
6. SE7	302.	.9	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	81.	.7	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	95.	1.0	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0
2. SE3	.0	.0	.2	.0	.0	.2	.3	.0	.0	.0	.0	.0
3. SW3	.1	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0
4. NW3	.1	.7	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	.0	.0	.1	.0	.0	.2	.3	.0	.0	.0	.0	.0
7. SW7	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
8. NW7	.0	.6	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	1724	1.2	.0	15.0
B. NA	5	-150	5	0	AG	1094	2.1	.0	13.5
C. ND	2	0	2	150	AG	1531	2.1	.0	9.9
D. NE	2	150	2	450	AG	1531	1.2	.0	10.5
E. SF	-7	450	-7	150	AG	0	1.2	.0	10.5
F. SA	-7	150	-7	0	AG	0	1.9	.0	9.9
G. SD	-7	0	-7	-150	AG	0	1.4	.0	9.9
H. SE	-7	-150	-7	-450	AG	0	1.2	.0	10.5
I. WF	450	7	150	7	AG	2443	1.2	.0	24.0
J. WA	150	7	0	7	AG	2443	1.7	.0	13.5
K. WD	0	0	-150	0	AG	2322	1.3	.0	13.5
L. WE	-150	0	-450	0	AG	2322	1.2	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2633	1.2	.0	24.0
N. EA	*	-150	-2	0	-2	*	AG	1883	1.8	.0	9.9
O. ED	*	0	-11	150	-11	*	AG	2947	1.4	.0	9.9
P. EE	*	150	-11	450	-11	*	AG	2947	1.2	.0	15.0
Q. NL	*	0	0	2	-150	*	AG	630	2.0	.0	9.9
R. SL	*	0	0	-7	150	*	AG	0	1.9	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	1.5	.0	9.9
T. EL	*	0	0	-150	0	*	AG	750	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	19	1.8
2. SE3	12	-14	1.8
3. SW3	-12	-19	1.8
4. NW3	-12	10	1.8
5. NE7	11	23	1.8
6. SE7	16	-18	1.8
7. SW7	-16	-23	1.8
8. NW7	-16	14	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	183.	1.1	.0	.3	.2	.0	.0	.0	.0	.0
2. SE3	277.	1.2	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	84.	.8	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	93.	1.0	.0	.0	.1	.0	.0	.0	.0	.0
5. NE7	184.	.7	.0	.3	.0	.0	.0	.0	.0	.0
6. SE7	301.	.9	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	83.	.6	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	95.	.9	.0	.0	.1	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: I-5 NB DEL MAR HEIGHTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.1	.0	.2	.0	.0	.0
2. SE3	.0	.0	.2	.0	.0	.3	.3	.0	.0	.0	.0	.0
3. SW3	.1	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0
4. NW3	.1	.6	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. NE7	.0	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
6. SE7	.0	.0	.1	.0	.0	.2	.3	.0	.0	.0	.0	.0
7. SW7	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
8. NW7	.0	.5	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
   BRG= WORST CASE           VD=   .0 CM/S
  CLAS=     7 (G)            VS=   .0 CM/S
  MIXH= 1000. M             AMB=   .0 PPM
 SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	249	2.9	.0	24.0
B. NA	5	-150	5	0	AG	54	4.5	.0	9.9
C. ND	0	0	0	150	AG	186	4.0	.0	9.9
D. NE	0	150	0	450	AG	186	2.9	.0	15.0
E. SF	-7	450	-7	150	AG	470	2.9	.0	19.5
F. SA	-7	150	-7	0	AG	360	4.5	.0	9.9
G. SD	-9	0	-9	-150	AG	832	4.5	.0	9.9
H. SE	-9	-150	-9	-450	AG	832	2.9	.0	15.0
I. WF	450	9	150	9	AG	2100	2.9	.0	24.0
J. WA	150	9	0	9	AG	1999	3.4	.0	13.5
K. WD	0	2	-150	2	AG	2429	2.6	.0	13.5
L. WE	-150	2	-450	2	AG	2429	2.9	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2546	2.9	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2438	3.2	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	1918	2.5	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	1918	2.9	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	195	4.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	110	4.5	.0	9.9
S. WL	*	0	0	150	2	*	AG	101	3.0	.0	9.9
T. EL	*	0	0	-150	2	*	AG	108	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.8	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	4.	1.5	.0	.0	.0	.0	.0	.3	.4	.0
4. NW3	92.	1.6	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	83.	1.1	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	173.	1.1	.0	.0	.0	.0	.0	.0	.4	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.2	.3	.2	.5	.3	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	*	.3	1.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.2	.3	.1	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.2	.1	.1	.5	.0	.0	.0	.0	.0	.0
7. SW7	*	.3	.0	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0
8. NW7	*	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
        U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	841	2.9	.0	24.0
B. NA	5	-150	5	0	AG	223	4.4	.0	9.9
C. ND	0	0	0	150	AG	376	3.3	.0	9.9
D. NE	0	150	0	450	AG	376	2.9	.0	15.0
E. SF	-7	450	-7	150	AG	160	2.9	.0	19.5
F. SA	-7	150	-7	0	AG	109	4.4	.0	9.9
G. SD	-9	0	-9	-150	AG	336	3.3	.0	9.9
H. SE	-9	-150	-9	-450	AG	336	2.9	.0	15.0
I. WF	450	9	150	9	AG	1977	2.9	.0	24.0
J. WA	150	9	0	9	AG	1921	3.2	.0	13.5
K. WD	0	2	-150	2	AG	2550	2.6	.0	13.5
L. WE	-150	2	-450	2	AG	2550	2.9	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2834	2.9	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2592	3.2	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	2550	2.6	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	2550	2.9	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	618	4.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	51	4.4	.0	9.9
S. WL	*	0	0	150	2	*	AG	56	3.0	.0	9.9
T. EL	*	0	0	-150	2	*	AG	242	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	2.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	264.	1.7	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	263.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*	CONC/LINK (PPM)											
1. NE3	*	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.2	.3	.2	.6	.5	.0	.1	.0	.0	.0
3. SW3	*	.3	.0	.0	.0	.0	.0	.7	.2	.1	.0	.0	.0
4. NW3	*	.0	.0	.6	.2	.3	.5	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.3	.1	.1	.5	.1	.0	.1	.0	.0	.0
7. SW7	*	.3	.0	.0	.0	.0	.0	.4	.2	.1	.0	.0	.0
8. NW7	*	.0	.0	.4	.2	.3	.3	.0	.0	.0	.0	.0	.0

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             CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                      JUNE 1989 VERSION
                      PAGE   1

                 JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM NP
                 RUN: Hour 1           (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=   .0 CM/S
      CLAS=     7 (G)             VS=   .0 CM/S
      MIXH= 1000. M              AMB=   .0 PPM
     SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*------------------------------
-
 A. NF          *     5  -450     5  -150 *  AG    218   2.9     .0
24.0
 B. NA          *     5  -150     5     0 *  AG     23   4.5     .0
9.9
 C. ND          *     0     0     0   150 *  AG    177   3.9     .0
9.9
 D. NE          *     0   150     0   450 *  AG    177   2.9     .0
15.0
 E. SF          *    -7   450    -7   150 *  AG    439   2.9     .0
19.5
 F. SA          *    -7   150    -7     0 *  AG    360   4.5     .0
9.9
 G. SD          *    -9     0    -9  -150 *  AG    823   4.5     .0
9.9
 H. SE          *    -9  -150    -9  -450 *  AG    823   2.9     .0
15.0
 I. WF          *   450     9   150     9 *  AG   1961   2.9     .0
24.0
 J. WA          *   150     9     0     9 *  AG   1869   3.2     .0
13.5
 K. WD          *     0     2  -150     2 *  AG   2308   2.6     .0
13.5
 L. WE          *  -150     2  -450     2 *  AG   2308   2.9     .0
19.5
```

M. EF	*	-450	-2	-150	-2	*	AG	2148	2.9	.0
28.5										
N. EA	*	-150	-2	0	-2	*	AG	2040	3.1	.0
18.0										
O. ED	*	0	-11	150	-11	*	AG	1458	2.5	.0
13.5										
P. EE	*	150	-11	450	-11	*	AG	1458	2.9	.0
19.5										
Q. NL	*	0	0	-2	-150	*	AG	195	4.5	.0
9.9										
R. SL	*	0	0	-2	150	*	AG	79	4.5	.0
9.9										
S. WL	*	0	0	150	2	*	AG	92	3.0	.0
9.9										
T. EL	*	0	0	-150	2	*	AG	108	3.0	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.5	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	4.	1.4	.0	.0	.0	.0	.0	.3	.4	.0
4. NW3	92.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	.9	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	278.	1.1	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	24.	1.0	.0	.0	.0	.0	.0	.0	.4	.0
8. NW7	173.	1.0	.0	.0	.0	.0	.0	.0	.4	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*						CONC/LINK (PPM)						
1. NE3	*	.0	.0	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.2	.3	.2	.4	.3	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	*	.3	.9	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.2	.2	.1	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.2	.2	.1	.4	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0

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              CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                       JUNE 1989 VERSION
                       PAGE   1

                  JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM NP
                  RUN: Hour 1           (WORST CASE ANGLE)
            POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *                EF     H     W
  DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*------------------------------
-
 A. NF          *     5  -450     5  -150 *  AG    817   2.9     .0
24.0
 B. NA          *     5  -150     5     0 *  AG    199   4.3     .0
9.9
 C. ND          *     0     0     0   150 *  AG    335   2.9     .0
9.9
 D. NE          *     0   150     0   450 *  AG    335   2.9     .0
15.0
 E. SF          *    -7   450    -7   150 *  AG    136   2.9     .0
19.5
 F. SA          *    -7   150    -7     0 *  AG    109   4.3     .0
9.9
 G. SD          *    -9     0    -9  -150 *  AG    295   2.9     .0
9.9
 H. SE          *    -9  -150    -9  -450 *  AG    295   2.9     .0
15.0
 I. WF          *   450     9   150     9 *  AG   1362   2.9     .0
24.0
 J. WA          *   150     9     0     9 *  AG   1347   3.1     .0
13.5
 K. WD          *     0     2  -150     2 *  AG   2017   2.6     .0
13.5
 L. WE          *  -150     2  -450     2 *  AG   2017   2.9     .0
19.5
```

M. EF	*	-450	-2	-150	-2	*	AG	2522	2.9	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2280	3.2	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	2190	2.6	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	2190	2.9	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	618	4.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	27	4.3	.0	9.9
S. WL	*	0	0	150	2	*	AG	15	3.0	.0	9.9
T. EL	*	0	0	-150	2	*	AG	242	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.8	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	264.	1.5	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	.9	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	84.	.9	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.2	.2	.2	.2	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.2	.2	.2	.5	.4	.0	.1	.0	.0	.0
3. SW3	*	.2	.0	.0	.0	.0	.0	.6	.1	.1	.0	.0	.0
4. NW3	*	.0	.0	.5	.2	.3	.4	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.2	.3	.1	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.2	.1	.1	.5	.1	.0	.1	.0	.0	.0
7. SW7	*	.2	.0	.0	.0	.0	.0	.4	.2	.1	.0	.0	.0
8. NW7	*	.0	.0	.3	.2	.3	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S
BRG= WORST CASE
CLAS= 7 (G)
MIXH= 1000. M
SIGTH= 5. DEGREES

Z0= 100. CM
VD= .0 CM/S
VS= .0 CM/S
AMB= .0 PPM
TEMP= 15.6 DEGREE (C)

ALT= 0. (M)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	5	-450	5	-150	*	AG	251	2.9	.0	24.0
B. NA	*	5	-150	5	0	*	AG	50	4.5	.0	9.9
C. ND	*	0	0	0	150	*	AG	190	4.0	.0	9.9
D. NE	*	0	150	0	450	*	AG	190	2.9	.0	15.0
E. SF	*	-7	450	-7	150	*	AG	479	2.9	.0	19.5
F. SA	*	-7	150	-7	0	*	AG	371	4.5	.0	9.9
G. SD	*	-9	0	-9	-150	*	AG	856	4.5	.0	9.9
H. SE	*	-9	-150	-9	-450	*	AG	856	2.9	.0	15.0
I. WF	*	450	9	150	9	*	AG	2142	2.9	.0	24.0
J. WA	*	150	9	0	9	*	AG	2039	3.4	.0	13.5
K. WD	*	0	2	-150	2	*	AG	2483	2.6	.0	13.5
L. WE	*	-150	2	-450	2	*	AG	2483	2.9	.0	19.5
M. EF	*	-450	-2	-150	-2	*	AG	2561	2.9	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2450	3.2	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	1904	2.5	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	1904	2.9	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	201	4.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	108	4.5	.0	9.9
S. WL	*	0	0	150	2	*	AG	103	3.0	.0	9.9
T. EL	*	0	0	-150	2	*	AG	111	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.8	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	4.	1.5	.0	.0	.0	.0	.0	.3	.4	.0
4. NW3	92.	1.6	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	83.	1.1	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	173.	1.1	.0	.0	.0	.0	.0	.0	.4	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.2	.3	.2	.5	.3	.0	.0	.0	.0	.0
3. SW3	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.3	1.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.3	.1	.1	.5	.0	.0	.0	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0
8. NW7	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	864	2.9	.0	24.0
B. NA	5	-150	5	0	AG	227	4.4	.0	9.9
C. ND	0	0	0	150	AG	383	3.3	.0	9.9
D. NE	0	150	0	450	AG	383	2.9	.0	15.0
E. SF	-7	450	-7	150	AG	162	2.9	.0	19.5
F. SA	-7	150	-7	0	AG	112	4.4	.0	9.9
G. SD	-9	0	-9	-150	AG	342	3.3	.0	9.9
H. SE	-9	-150	-9	-450	AG	342	2.9	.0	15.0
I. WF	450	9	150	9	AG	1970	2.9	.0	24.0
J. WA	150	9	0	9	AG	1917	3.2	.0	13.5
K. WD	0	2	-150	2	AG	2569	2.6	.0	13.5
L. WE	-150	2	-450	2	AG	2569	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	2889	2.9	.0	28.5
N. EA	-150	-2	0	-2	AG	2640	3.4	.0	18.0
O. ED	0	-11	150	-11	AG	2591	2.6	.0	13.5
P. EE	150	-11	450	-11	AG	2591	2.9	.0	19.5
Q. NL	0	0	-2	-150	AG	637	4.5	.0	9.9
R. SL	0	0	-2	150	AG	50	4.4	.0	9.9
S. WL	0	0	150	2	AG	53	3.0	.0	9.9
T. EL	0	0	-150	2	AG	249	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	262.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	2.1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	264.	1.7	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.4	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	263.	1.3	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 2 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. NE3	.0	.0	.3	.2	.3	.3	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.2	.3	.2	.6	.5	.0	.1	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.7	.2	.1	.0	.0	.0
4. NW3	.0	.0	.6	.2	.3	.5	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.3	.2	.1	.5	.1	.0	.1	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.5	.2	.1	.0	.0	.0
8. NW7	.0	.0	.4	.2	.3	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	247	2.9	.0	24.0
B. NA	5	-150	5	0	AG	46	4.5	.0	9.9
C. ND	0	0	0	150	AG	186	3.9	.0	9.9
D. NE	0	150	0	450	AG	186	2.9	.0	15.0
E. SF	-7	450	-7	150	AG	475	2.9	.0	19.5
F. SA	-7	150	-7	0	AG	371	4.5	.0	9.9
G. SD	-9	0	-9	-150	AG	852	4.5	.0	9.9
H. SE	-9	-150	-9	-450	AG	852	2.9	.0	15.0
I. WF	450	9	150	9	AG	2077	2.9	.0	24.0
J. WA	150	9	0	9	AG	1978	3.4	.0	13.5
K. WD	0	2	-150	2	AG	2426	2.6	.0	13.5
L. WE	-150	2	-450	2	AG	2426	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	2506	2.9	.0	28.5
N. EA	-150	-2	0	-2	AG	2395	3.2	.0	18.0
O. ED	0	-11	150	-11	AG	1841	2.5	.0	13.5
P. EE	150	-11	450	-11	AG	1841	2.9	.0	19.5
Q. NL	0	0	-2	-150	AG	201	4.5	.0	9.9
R. SL	0	0	-2	150	AG	104	4.5	.0	9.9
S. WL	0	0	150	2	AG	99	3.0	.0	9.9
T. EL	0	0	-150	2	AG	111	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.7	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	4.	1.5	.0	.0	.0	.0	.0	.3	.4	.0
4. NW3	92.	1.6	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.2	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	83.	1.0	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	173.	1.1	.0	.0	.0	.0	.0	.0	.4	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 AM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.2	.3	.2	.5	.3	.0	.0	.0	.0	.0
3. SW3	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
4. NW3	.3	1.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.2	.2	.3	.1	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.2	.1	.1	.5	.0	.0	.0	.0	.0	.0
7. SW7	.3	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0
8. NW7	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	851	2.9	.0	24.0
B. NA	5	-150	5	0	AG	214	4.4	.0	9.9
C. ND	0	0	0	150	AG	371	3.1	.0	9.9
D. NE	0	150	0	450	AG	371	2.9	.0	15.0
E. SF	-7	450	-7	150	AG	149	2.9	.0	19.5
F. SA	-7	150	-7	0	AG	112	4.4	.0	9.9
G. SD	-9	0	-9	-150	AG	330	3.1	.0	9.9
H. SE	-9	-150	-9	-450	AG	330	2.9	.0	15.0
I. WF	450	9	150	9	AG	1791	2.9	.0	24.0
J. WA	150	9	0	9	AG	1750	3.2	.0	13.5
K. WD	0	2	-150	2	AG	2414	2.6	.0	13.5
L. WE	-150	2	-450	2	AG	2414	2.9	.0	19.5
M. EF	-450	-2	-150	-2	AG	2719	2.9	.0	28.5
N. EA	-150	-2	0	-2	AG	2470	3.2	.0	18.0
O. ED	0	-11	150	-11	AG	2395	2.6	.0	13.5
P. EE	150	-11	450	-11	AG	2395	2.9	.0	19.5
Q. NL	0	0	-2	-150	AG	637	4.5	.0	9.9
R. SL	0	0	-2	150	AG	37	4.4	.0	9.9
S. WL	0	0	150	2	AG	41	3.0	.0	9.9
T. EL	0	0	-150	2	AG	249	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	264.	1.6	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	262.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	279.	1.3	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	263.	1.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HEIGHTS RD Ph 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.2	.3	.2	.5	.4	.0	.1	.0	.0	.0
3. SW3	.2	.0	.0	.0	.0	.0	.6	.2	.1	.0	.0	.0
4. NW3	.0	.0	.6	.2	.3	.4	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.2	.2	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.2	.1	.1	.5	.1	.0	.1	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.4	.1	.1	.0	.0	.0
8. NW7	.0	.0	.4	.2	.3	.3	.0	.0	.0	.0	.0	.0

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              CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                       JUNE 1989 VERSION
                       PAGE   1

                  JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM NP
                  RUN: Hour 1           (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
       BRG= WORST CASE            VD=   .0 CM/S
      CLAS=     7 (G)             VS=   .0 CM/S
      MIXH= 1000. M              AMB=   .0 PPM
     SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION   *   X1     Y1     X2     Y2   * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*-------------------------------
-
 A. NF           *     5  -450      5  -150 *  AG    350   1.2      .0
24.0
 B. NA           *     5  -150      5     0 *  AG     60   1.9      .0
9.9
 C. ND           *     0     0      0   150 *  AG    260   1.4      .0
9.9
 D. NE           *     0   150      0   450 *  AG    260   1.2      .0
15.0
 E. SF           *    -7   450     -7   150 *  AG    590   1.2      .0
19.5
 F. SA           *    -7   150     -7     0 *  AG    470   1.9      .0
9.9
 G. SD           *    -9     0     -9  -150 *  AG   1120   2.1      .0
9.9
 H. SE           *    -9  -150     -9  -450 *  AG   1120   1.2      .0
15.0
 I. WF           *   450     9    150     9 *  AG   2190   1.2      .0
24.0
 J. WA           *   150     9      0     9 *  AG   1980   1.6      .0
13.5
 K. WD           *     0     2   -150     2 *  AG   2560   1.3      .0
13.5
 L. WE           *  -150     2   -450     2 *  AG   2560   1.2      .0
19.5
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M. EF	*	-450	-2	-150	-2	*	AG	960	1.2	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	840	1.5	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	150	1.2	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	150	1.2	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	290	1.9	.0	9.9
R. SL	*	0	0	-2	150	*	AG	120	1.9	.0	9.9
S. WL	*	0	0	150	2	*	AG	210	1.5	.0	9.9
T. EL	*	0	0	-150	2	*	AG	120	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	187.	.5	.0	.0	.0	.0	.0	.0	.1	.0
2. SE3	277.	.5	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	4.	.7	.0	.0	.0	.0	.0	.1	.3	.0
4. NW3	91.	.7	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	209.	.4	.0	.0	.0	.0	.0	.0	.1	.0
6. SE7	278.	.4	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	25.	.5	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	173.	.5	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	900	1.2	.0	24.0
B. NA	5	-150	5	0	AG	220	1.9	.0	9.9
C. ND	0	0	0	150	AG	470	1.4	.0	9.9
D. NE	0	150	0	450	AG	470	1.2	.0	15.0
E. SF	-7	450	-7	150	AG	280	1.2	.0	19.5
F. SA	-7	150	-7	0	AG	240	1.9	.0	9.9
G. SD	-9	0	-9	-150	AG	360	1.4	.0	9.9
H. SE	-9	-150	-9	-450	AG	360	1.2	.0	15.0
I. WF	450	9	150	9	AG	1533	1.2	.0	24.0
J. WA	150	9	0	9	AG	1513	1.5	.0	13.5
K. WD	0	2	-150	2	AG	2243	1.3	.0	13.5
L. WE	-150	2	-450	2	AG	2243	1.2	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2768	1.2	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2518	1.6	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	2408	1.3	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	2408	1.2	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	680	2.1	.0	9.9
R. SL	*	0	0	-2	150	*	AG	40	1.9	.0	9.9
S. WL	*	0	0	150	2	*	AG	20	1.5	.0	9.9
T. EL	*	0	0	-150	2	*	AG	250	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	261.	.5	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	277.	.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	263.	.8	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	259.	.4	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	285.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	.5	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	262.	.6	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.1	.0	.0	.3	.2	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.3	.0	.1	.3	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.1	.0	.0	.3	.1	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.2	.0	.1	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
 BRG= WORST CASE           VD=   .0 CM/S
CLAS=     7 (G)            VS=   .0 CM/S
MIXH= 1000. M             AMB=   .0 PPM
SIGTH=   5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	384	1.2	.0	24.0
B. NA	5	-150	5	0	AG	94	2.1	.0	9.9
C. ND	0	0	0	150	AG	275	1.6	.0	9.9
D. NE	0	150	0	450	AG	275	1.2	.0	15.0
E. SF	-7	450	-7	150	AG	624	1.2	.0	19.5
F. SA	-7	150	-7	0	AG	470	2.1	.0	9.9
G. SD	-9	0	-9	-150	AG	1135	2.1	.0	9.9
H. SE	-9	-150	-9	-450	AG	1135	1.2	.0	15.0
I. WF	450	9	150	9	AG	2415	1.2	.0	24.0
J. WA	150	9	0	9	AG	2190	1.6	.0	13.5
K. WD	0	2	-150	2	AG	2755	1.3	.0	13.5
L. WE	-150	2	-450	2	AG	2755	1.2	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	2900	1.2	.0
28.5										
N. EA	*	-150	-2	0	-2	*	AG	2780	1.6	.0
18.0										
O. ED	*	0	-11	150	-11	*	AG	2158	1.3	.0
13.5										
P. EE	*	150	-11	450	-11	*	AG	2158	1.2	.0
19.5										
Q. NL	*	0	0	-2	-150	*	AG	290	2.1	.0
9.9										
R. SL	*	0	0	-2	150	*	AG	154	2.1	.0
9.9										
S. WL	*	0	0	150	2	*	AG	225	1.5	.0
9.9										
T. EL	*	0	0	-150	2	*	AG	120	1.5	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	261.	.6	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	277.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	4.	.8	.0	.0	.0	.0	.0	.2	.3	.0
4. NW3	174.	.8	.0	.0	.0	.0	.0	.0	.3	.0
5. NE7	259.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	282.	.7	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	82.	.6	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	172.	.7	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
						CONC/LINK (PPM)						
1. NE3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.1	.0	.0	.3	.2	.0	.0	.0	.0	.0
3. SW3	.0	.0	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	.1	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	936	1.2	.0	24.0
B. NA	5	-150	5	0	AG	256	2.0	.0	9.9
C. ND	0	0	0	150	AG	520	1.8	.0	9.9
D. NE	0	150	0	450	AG	520	1.2	.0	15.0
E. SF	-7	450	-7	150	AG	316	1.2	.0	19.5
F. SA	-7	150	-7	0	AG	240	2.0	.0	9.9
G. SD	-9	0	-9	-150	AG	410	1.5	.0	9.9
H. SE	-9	-150	-9	-450	AG	410	1.2	.0	15.0
I. WF	450	9	150	9	AG	2288	1.2	.0	24.0
J. WA	150	9	0	9	AG	2218	1.6	.0	13.5
K. WD	0	2	-150	2	AG	2898	1.4	.0	13.5
L. WE	-150	2	-450	2	AG	2898	1.2	.0	19.5

M. EF	*	-450	-2	-150	-2	*	AG	3232	1.2	.0	28.5
N. EA	*	-150	-2	0	-2	*	AG	2982	1.6	.0	18.0
O. ED	*	0	-11	150	-11	*	AG	2944	1.4	.0	13.5
P. EE	*	150	-11	450	-11	*	AG	2944	1.2	.0	19.5
Q. NL	*	0	0	-2	-150	*	AG	680	2.1	.0	9.9
R. SL	*	0	0	-2	150	*	AG	76	2.0	.0	9.9
S. WL	*	0	0	150	2	*	AG	70	1.5	.0	9.9
T. EL	*	0	0	-150	2	*	AG	250	1.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	8	21	1.8
2. SE3	17	-17	1.8
3. SW3	-12	-21	1.8
4. NW3	-17	12	1.8
5. NE7	11	25	1.8
6. SE7	20	-20	1.8
7. SW7	-16	-25	1.8
8. NW7	-20	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	260.	.6	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	278.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	83.	.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	263.	.9	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	259.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	288.	.8	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	82.	.6	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	261.	.7	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: HIGH BLUFF DR DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.2	.0	.0	.4	.3	.0	.0	.0	.0	.0
3. SW3	.1	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
4. NW3	.0	.0	.4	.0	.1	.3	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.2	.0	.0	.3	.2	.0	.0	.0	.0	.0
7. SW7	.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
8. NW7	.0	.0	.3	.0	.1	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	602	2.9	.0	24.0
B. NA	7	-150	7	0	AG	602	3.7	.0	18.0
C. ND	7	0	7	150	AG	1014	2.6	.0	18.0
D. NE	7	150	7	450	AG	1014	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	866	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	725	3.7	.0	13.5
G. SD	-9	0	-9	-150	AG	1034	2.6	.0	13.5
H. SE	-9	-150	-9	-450	AG	1034	2.9	.0	19.5
I. WF	450	5	150	5	AG	0	2.9	.0	19.5
J. WA	150	5	0	5	AG	0	3.3	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	1858	2.9	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1225	4.5	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1278	3.5	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1278	2.9	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	3.7	.0	9.9
R. SL	*	0	0	-5	150	*	AG	141	3.7	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.3	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	633	3.8	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.8	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	274.	1.6	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	274.	1.5	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	174.	.8	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.7	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	276.	1.0	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	7.	.9	.0	.0	.0	.1	.0	.2	.0	.0
8. NW7	174.	.7	.1	.0	.0	.0	.0	.0	.2	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
2. SE3	.0	.0	.0	.0	.1	.8	.3	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.2	1.1	.0	.0	.0	.0	.0	.2
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.2
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1305	2.9	.0	24.0
B. NA	7	-150	7	0	AG	1305	3.4	.0	18.0
C. ND	7	0	7	150	AG	1397	2.6	.0	18.0
D. NE	7	150	7	450	AG	1397	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	857	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	603	3.3	.0	13.5
G. SD	-9	0	-9	-150	AG	733	2.5	.0	13.5
H. SE	-9	-150	-9	-450	AG	733	2.9	.0	19.5
I. WF	450	5	150	5	AG	0	2.9	.0	19.5
J. WA	150	5	0	5	AG	0	3.7	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	1653	2.9	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1131	4.5	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1685	4.4	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1685	2.9	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	3.3	.0	9.9
R. SL	*	0	0	-5	150	*	AG	254	3.4	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.7	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	522	4.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	186.	.9	.1	.4	.0	.0	.0	.0	.0	.1
2. SE3	275.	1.8	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.8	.0	.2	.0	.0	.0	.0	.1	.0
4. NW3	174.	.8	.2	.0	.0	.0	.0	.0	.2	.0
5. NE7	187.	.8	.1	.3	.0	.0	.0	.0	.0	.1
6. SE7	276.	1.0	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	173.	.7	.2	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.0	.3	1.0	.1	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.1
7. SW7	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=   .0 CM/S
  CLAS=     7 (G)             VS=   .0 CM/S
  MIXH= 1000. M              AMB=   .0 PPM
 SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	622	2.9	.0	24.0
B. NA	7	-150	7	0	AG	622	3.7	.0	18.0
C. ND	7	0	7	150	AG	1054	2.6	.0	18.0
D. NE	7	150	7	450	AG	1054	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	878	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	731	3.7	.0	13.5
G. SD	-9	0	-9	-150	AG	1040	2.6	.0	13.5
H. SE	-9	-150	-9	-450	AG	1040	2.9	.0	19.5
I. WF	450	5	150	5	AG	20	2.9	.0	19.5
J. WA	150	5	0	5	AG	20	3.3	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	1858	2.9	.0
10.5										
N. EA	*	-150	-9	0	-9	*	AG	1225	4.5	.0
9.9										
O. ED	*	0	-9	150	-9	*	AG	1284	3.5	.0
9.9										
P. EE	*	150	-9	450	-9	*	AG	1284	2.9	.0
10.5										
Q. NL	*	0	0	0	-150	*	AG	0	3.7	.0
9.9										
R. SL	*	0	0	-5	150	*	AG	147	3.7	.0
9.9										
S. WL	*	0	0	150	0	*	AG	0	3.3	.0
9.9										
T. EL	*	0	0	-150	-9	*	AG	633	3.8	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.8	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	274.	1.6	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	274.	1.5	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	174.	.8	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.7	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	276.	1.0	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	7.	.9	.0	.0	.0	.2	.0	.2	.0	.0
8. NW7	174.	.7	.1	.0	.0	.0	.0	.0	.2	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

	CONC/LINK (PPM)											
RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
2. SE3	.0	.0	.0	.0	.1	.8	.3	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.2	1.1	.0	.0	.0	.0	.0	.2
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.2
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1321	2.9	.0	24.0
B. NA	7	-150	7	0	AG	1321	3.4	.0	18.0
C. ND	7	0	7	150	AG	1429	2.6	.0	18.0
D. NE	7	150	7	450	AG	1429	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	911	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	630	3.3	.0	13.5
G. SD	-9	0	-9	-150	AG	760	2.6	.0	13.5
H. SE	-9	-150	-9	-450	AG	760	2.9	.0	19.5
I. WF	450	5	150	5	AG	16	2.9	.0	19.5
J. WA	150	5	0	5	AG	16	3.7	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	1653	2.9	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1131	4.5	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1712	4.4	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1712	2.9	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	3.3	.0	9.9
R. SL	*	0	0	-5	150	*	AG	281	3.4	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.7	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	522	4.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	186.	.9	.1	.4	.0	.0	.0	.0	.0	.1
2. SE3	275.	1.9	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.8	.0	.2	.0	.0	.0	.0	.1	.0
4. NW3	174.	.8	.2	.0	.0	.0	.0	.0	.2	.0
5. NE7	187.	.8	.1	.3	.0	.0	.0	.0	.0	.1
6. SE7	276.	1.1	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	173.	.7	.2	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	.2
3. SW3	*	.0	.0	.0	.0	.0	.3	1.1	.1	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.1
7. SW7	*	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

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            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   1

                JOB: EL CAMINO SR-56 EB Ph 2 AM Near Term
                RUN: Hour 1           (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide
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I. SITE VARIABLES

```
        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=    .0 CM/S
     CLAS=     7 (G)             VS=    .0 CM/S
     MIXH= 1000. M              AMB=    .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	636	2.9	.0	24.0
B. NA	7	-150	7	0	AG	636	3.7	.0	18.0
C. ND	7	0	7	150	AG	1078	2.6	.0	18.0
D. NE	7	150	7	450	AG	1078	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	899	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	750	3.8	.0	13.5
G. SD	-9	0	-9	-150	AG	1067	2.7	.0	13.5
H. SE	-9	-150	-9	-450	AG	1067	2.9	.0	19.5
I. WF	450	5	150	5	AG	18	2.9	.0	19.5
J. WA	150	5	0	5	AG	18	3.3	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5
M. EF	-450	-9	-150	-9	AG	1911	2.9	.0	10.5
N. EA	-150	-9	0	-9	AG	1260	4.5	.0	9.9
O. ED	0	-9	150	-9	AG	1319	3.5	.0	9.9
P. EE	150	-9	450	-9	AG	1319	2.9	.0	10.5
Q. NL	0	0	0	-150	AG	0	3.7	.0	9.9
R. SL	0	0	-5	150	AG	149	3.7	.0	9.9
S. WL	0	0	150	0	AG	0	3.3	.0	9.9
T. EL	0	0	-150	-9	AG	651	3.9	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO SR-56 EB Ph 2 AM Near Term
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.8	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	274.	1.7	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	275.	1.5	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	174.	.9	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.7	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	276.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	8.	.9	.0	.0	.0	.1	.0	.3	.0	.0
8. NW7	174.	.7	.1	.0	.0	.0	.0	.0	.2	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO SR-56 EB Ph 2 AM Near Term
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
2. SE3	.0	.0	.0	.0	.1	.9	.3	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.1	1.2	.0	.0	.0	.0	.0	.2
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.2
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.1
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO SR-56 EB Ph 2 PM Near Term
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1356	2.9	.0	24.0
B. NA	7	-150	7	0	AG	1356	3.4	.0	18.0
C. ND	7	0	7	150	AG	1466	2.6	.0	18.0
D. NE	7	150	7	450	AG	1466	2.9	.0	24.0
E. SF	-9	450	-9	150	AG	930	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	645	3.3	.0	13.5
G. SD	-9	0	-9	-150	AG	778	2.6	.0	13.5
H. SE	-9	-150	-9	-450	AG	778	2.9	.0	19.5
I. WF	450	5	150	5	AG	15	2.9	.0	19.5
J. WA	150	5	0	5	AG	15	3.7	.0	18.0
K. WD	0	5	-150	5	AG	0	2.6	.0	13.5
L. WE	-150	5	-450	5	AG	0	2.9	.0	19.5
M. EF	-450	-9	-150	-9	AG	1701	2.9	.0	10.5
N. EA	-150	-9	0	-9	AG	1164	4.5	.0	9.9
O. ED	0	-9	150	-9	AG	1758	4.4	.0	9.9
P. EE	150	-9	450	-9	AG	1758	2.9	.0	10.5
Q. NL	0	0	0	-150	AG	0	3.3	.0	9.9
R. SL	0	0	-5	150	AG	285	3.4	.0	9.9
S. WL	0	0	150	0	AG	0	3.7	.0	9.9
T. EL	0	0	-150	-9	AG	537	4.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO SR-56 EB Ph 2 PM Near Term
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	186.	1.0	.1	.5	.0	.0	.0	.0	.0	.1
2. SE3	275.	1.9	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.8	.0	.2	.0	.0	.0	.0	.1	.0
4. NW3	174.	.8	.2	.0	.0	.0	.0	.0	.2	.0
5. NE7	187.	.8	.1	.3	.0	.0	.0	.0	.0	.1
6. SE7	276.	1.1	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	173.	.7	.2	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO SR-56 EB Ph 2 PM Near Term
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.0	.3	1.1	.1	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.1
7. SW7	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO SR-56 EB ON RAMP Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
		LINK COORDINATES (M)									
A. NF	*	7	-450	7	-150	*	AG	633	2.9	.0	24.0
B. NA	*	7	-150	7	0	*	AG	633	3.7	.0	18.0
C. ND	*	7	0	7	150	*	AG	1072	2.6	.0	18.0
D. NE	*	7	150	7	450	*	AG	1072	2.9	.0	24.0
E. SF	*	-9	450	-9	150	*	AG	895	2.9	.0	19.5
F. SA	*	-9	150	-9	0	*	AG	748	3.7	.0	13.5
G. SD	*	-9	0	-9	-150	*	AG	1065	2.7	.0	13.5
H. SE	*	-9	-150	-9	-450	*	AG	1065	2.9	.0	19.5
I. WF	*	450	5	150	5	*	AG	15	2.9	.0	19.5
J. WA	*	150	5	0	5	*	AG	15	3.3	.0	18.0
K. WD	*	0	5	-150	5	*	AG	0	2.6	.0	13.5
L. WE	*	-150	5	-450	5	*	AG	0	2.9	.0	19.5
M. EF	*	-450	-9	-150	-9	*	AG	1911	2.9	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1260	4.5	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1317	3.5	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1317	2.9	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	3.7	.0	9.9
R. SL	*	0	0	-5	150	*	AG	147	3.7	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.3	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	651	3.9	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO SR-56 EB ON RAMP Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.8	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	274.	1.7	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	275.	1.5	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	174.	.9	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.7	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	276.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	7.	.9	.0	.0	.0	.2	.0	.2	.0	.0
8. NW7	174.	.7	.1	.0	.0	.0	.0	.0	.2	.1

□

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO SR-56 EB ON RAMP Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
2. SE3	.0	.0	.0	.0	.1	.9	.3	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.1	1.2	.0	.0	.0	.0	.0	.2
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1
5. NE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.2
7. SW7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.1
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB ON RAMP PH 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S
BRG= WORST CASE
CLAS= 7 (G)
MIXH= 1000. M
SIGTH= 5. DEGREES

Z0= 100. CM
VD= .0 CM/S
VS= .0 CM/S
AMB= .0 PPM
TEMP= 15.6 DEGREE (C)

ALT= 0. (M)

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	7	-450	7	-150	*	AG	1347	2.9	.0	24.0
B. NA	*	7	-150	7	0	*	AG	1347	3.4	.0	18.0
C. ND	*	7	0	7	150	*	AG	1448	2.6	.0	18.0
D. NE	*	7	150	7	450	*	AG	1448	2.9	.0	24.0
E. SF	*	-9	450	-9	150	*	AG	916	2.9	.0	19.5
F. SA	*	-9	150	-9	0	*	AG	638	3.3	.0	13.5
G. SD	*	-9	0	-9	-150	*	AG	771	2.6	.0	13.5
H. SE	*	-9	-150	-9	-450	*	AG	771	2.9	.0	19.5
I. WF	*	450	5	150	5	*	AG	6	2.9	.0	19.5
J. WA	*	150	5	0	5	*	AG	6	3.7	.0	18.0
K. WD	*	0	5	-150	5	*	AG	0	2.6	.0	13.5
L. WE	*	-150	5	-450	5	*	AG	0	2.9	.0	19.5
M. EF	*	-450	-9	-150	-9	*	AG	1701	2.9	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1164	4.5	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1751	4.4	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1751	2.9	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	3.3	.0	9.9
R. SL	*	0	0	-5	150	*	AG	278	3.4	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	3.7	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	537	4.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB ON RAMP PH 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	186.	1.0	.1	.5	.0	.0	.0	.0	.0	.1
2. SE3	275.	1.9	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.8	.0	.2	.0	.0	.0	.0	.1	.0
4. NW3	174.	.8	.2	.0	.0	.0	.0	.0	.2	.0
5. NE7	187.	.8	.1	.3	.0	.0	.0	.0	.0	.1
6. SE7	276.	1.1	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	173.	.7	.2	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB ON RAMP PH 1 PM
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

	CONC/LINK (PPM)											
RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.8	.5	.0	.0	.0	.0	.2
3. SW3	.0	.0	.0	.0	.0	.3	1.1	.1	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.1
7. SW7	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	830	1.2	.0	24.0
B. NA	7	-150	7	0	AG	830	1.6	.0	18.0
C. ND	7	0	7	150	AG	1310	1.3	.0	18.0
D. NE	7	150	7	450	AG	1310	1.2	.0	24.0
E. SF	-9	450	-9	150	AG	1630	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	1480	1.7	.0	13.5
G. SD	-9	0	-9	-150	AG	1790	1.3	.0	13.5
H. SE	-9	-150	-9	-450	AG	1790	1.2	.0	19.5
I. WF	450	5	150	5	AG	0	1.2	.0	19.5
J. WA	150	5	0	5	AG	0	1.7	.0	18.0
K. WD	0	5	-150	5	AG	0	1.3	.0	13.5
L. WE	-150	5	-450	5	AG	0	1.2	.0	19.5

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 M. EF           *  -450    -9  -150    -9 *  AG   2040   1.2     .0
10.5
 N. EA           *  -150    -9     0    -9 *  AG   1240   2.1     .0
9.9
 O. ED           *     0    -9   150    -9 *  AG   1400   2.0     .0
9.9
 P. EE           *   150    -9   450    -9 *  AG   1400   1.2     .0
10.5
 Q. NL           *     0     0     0  -150 *  AG      0   1.6     .0
9.9
 R. SL           *     0     0    -5   150 *  AG    150   1.6     .0
9.9
 S. WL           *     0     0   150     0 *  AG      0   1.7     .0
9.9
 T. EL           *     0     0  -150    -9 *  AG    800   2.1     .0
9.9
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.5	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	275.	.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	86.	.8	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	174.	.5	.0	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.4	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	8.	.6	.0	.0	.0	.0	.0	.2	.0	.0
8. NW7	173.	.4	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

	CONC/LINK (PPM)											
RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2
2. SE3	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.1
3. SW3	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
6. SE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.1
7. SW7	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
    U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
  BRG= WORST CASE            VD=   .0 CM/S
 CLAS=     7 (G)             VS=   .0 CM/S
 MIXH= 1000. M              AMB=   .0 PPM
SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	1920	1.2	.0	24.0
B. NA	7	-150	7	0	AG	1920	1.6	.0	18.0
C. ND	7	0	7	150	AG	1660	1.2	.0	18.0
D. NE	7	150	7	450	AG	1660	1.2	.0	24.0
E. SF	-9	450	-9	150	AG	1630	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	1280	1.6	.0	13.5
G. SD	-9	0	-9	-150	AG	1480	1.3	.0	13.5
H. SE	-9	-150	-9	-450	AG	1480	1.2	.0	19.5
I. WF	450	5	150	5	AG	0	1.2	.0	19.5
J. WA	150	5	0	5	AG	0	1.8	.0	18.0
K. WD	0	5	-150	5	AG	0	1.3	.0	13.5
L. WE	-150	5	-450	5	AG	0	1.2	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	2147	1.2	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1407	2.1	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	2557	2.1	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	2557	1.2	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	1.6	.0	9.9
R. SL	*	0	0	-5	150	*	AG	350	1.6	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	1.8	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	740	2.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	187.	.6	.0	.3	.0	.0	.0	.0	.0	.0
2. SE3	275.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.1	.0	.1	.0	.0	.0	.0	.1	.0
4. NW3	173.	.6	.0	.0	.0	.0	.0	.0	.2	.0
5. NE7	188.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	299.	.7	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	.7	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	172.	.5	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.1
3. SW3	.0	.0	.0	.0	.0	.2	.7	.0	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U=	.5 M/S	Z0=	100. CM	ALT=	0. (M)
BRG=	WORST CASE	VD=	.0 CM/S		
CLAS=	7 (G)	VS=	.0 CM/S		
MIXH=	1000. M	AMB=	.0 PPM		
SIGTH=	5. DEGREES	TEMP=	15.6 DEGREE (C)		

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	7	-450	7	-150	AG	853	1.2	.0	24.0
B. NA	7	-150	7	0	AG	853	1.6	.0	18.0
C. ND	7	0	7	150	AG	1333	1.3	.0	18.0
D. NE	7	150	7	450	AG	1333	1.2	.0	24.0
E. SF	-9	450	-9	150	AG	1650	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	1490	1.7	.0	13.5
G. SD	-9	0	-9	-150	AG	1800	1.3	.0	13.5
H. SE	-9	-150	-9	-450	AG	1800	1.2	.0	19.5
I. WF	450	5	150	5	AG	0	1.2	.0	19.5
J. WA	150	5	0	5	AG	0	1.7	.0	18.0
K. WD	0	5	-150	5	AG	0	1.3	.0	13.5
L. WE	-150	5	-450	5	AG	0	1.2	.0	19.5

M. EF	*	-450	-9	-150	-9	*	AG	2040	1.2	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1240	2.1	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	1410	2.0	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	1410	1.2	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	1.6	.0	9.9
R. SL	*	0	0	-5	150	*	AG	160	1.6	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	1.7	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	800	2.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	258.	.5	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	275.	.9	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	86.	.8	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	174.	.5	.0	.0	.0	.0	.0	.0	.3	.0
5. NE7	257.	.4	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	8.	.6	.0	.0	.0	.0	.0	.2	.0	.0
8. NW7	173.	.4	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL SR-56 EB RAMP 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2
2. SE3	*	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	.1
3. SW3	*	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
6. SE7	*	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.1
7. SW7	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   1

                JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM WP
                RUN: Hour 1           (WORST CASE ANGLE)
         POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

       LINK       *  LINK COORDINATES (M)   *                 EF     H     W
    DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 -----------------*-------------------------*------------------------------
-
 A. NF            *     7  -450     7  -150 *  AG   1944   1.2     .0
24.0
 B. NA            *     7  -150     7     0 *  AG   1944   1.6     .0
18.0
 C. ND            *     7     0     7   150 *  AG   1684   1.2     .0
18.0
 D. NE            *     7   150     7   450 *  AG   1684   1.2     .0
24.0
 E. SF            *    -9   450    -9   150 *  AG   1698   1.2     .0
19.5
 F. SA            *    -9   150    -9     0 *  AG   1314   1.6     .0
13.5
 G. SD            *    -9     0    -9  -150 *  AG   1514   1.3     .0
13.5
 H. SE            *    -9  -150    -9  -450 *  AG   1514   1.2     .0
19.5
 I. WF            *   450     5   150     5 *  AG      0   1.2     .0
19.5
 J. WA            *   150     5     0     5 *  AG      0   1.8     .0
18.0
 K. WD            *     0     5  -150     5 *  AG      0   1.3     .0
13.5
 L. WE            *  -150     5  -450     5 *  AG      0   1.2     .0
19.5
```

M. EF	*	-450	-9	-150	-9	*	AG	2147	1.2	.0	10.5
N. EA	*	-150	-9	0	-9	*	AG	1407	2.1	.0	9.9
O. ED	*	0	-9	150	-9	*	AG	2591	2.1	.0	9.9
P. EE	*	150	-9	450	-9	*	AG	2591	1.2	.0	10.5
Q. NL	*	0	0	0	-150	*	AG	0	1.5	.0	9.9
R. SL	*	0	0	-5	150	*	AG	384	1.6	.0	9.9
S. WL	*	0	0	150	0	*	AG	0	1.8	.0	9.9
T. EL	*	0	0	-150	-9	*	AG	740	2.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
	COORDINATES (M)		
1. NE3	19	14	1.8
2. SE3	19	-14	1.8
3. SW3	-19	-14	1.8
4. NW3	-19	14	1.8
5. NE7	23	18	1.8
6. SE7	23	-18	1.8
7. SW7	-23	-18	1.8
8. NW7	-23	18	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	A	B	C	D	E	F	G	H
			CONC/LINK (PPM)							
1. NE3	187.	.6	.0	.3	.0	.0	.0	.0	.0	.0
2. SE3	275.	1.2	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	86.	1.2	.0	.1	.0	.0	.0	.0	.1	.0
4. NW3	173.	.6	.0	.0	.0	.0	.0	.0	.2	.0
5. NE7	188.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	300.	.7	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	.7	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	172.	.5	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: EL CAMINO REAL SR-56 EB RAMP 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*						CONC/LINK (PPM)						
1. NE3	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.1
3. SW3	*	.0	.0	.0	.0	.0	.2	.7	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	405	2.9	.0	19.5
B. NA	9	-150	9	0	AG	178	4.0	.0	18.0
C. ND	9	0	9	150	AG	407	2.7	.0	13.5
D. NE	9	150	9	450	AG	407	2.9	.0	19.5
E. SF	-9	450	-9	150	AG	867	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	708	4.0	.0	13.5
G. SD	-9	0	-9	-150	AG	885	2.8	.0	13.5
H. SE	-9	-150	-9	-450	AG	885	2.9	.0	19.5
I. WF	450	7	150	7	AG	1632	2.9	.0	19.5
J. WA	150	7	0	7	AG	1432	3.1	.0	13.5
K. WD	0	7	-150	7	AG	1972	2.6	.0	13.5
L. WE	-150	7	-450	7	AG	1972	2.9	.0	19.5

M. EF	*	-450	-7	-150	-7	*	AG	1463	2.9	.0	19.5
N. EA	*	-150	-7	0	-7	*	AG	1249	3.1	.0	13.5
O. ED	*	0	-7	150	-7	*	AG	1103	2.4	.0	13.5
P. EE	*	150	-7	450	-7	*	AG	1103	2.9	.0	19.5
Q. NL	*	0	0	5	-150	*	AG	227	4.0	.0	9.9
R. SL	*	0	0	-5	150	*	AG	159	4.0	.0	9.9
S. WL	*	0	0	150	2	*	AG	200	3.0	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	214	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	264.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	.9	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	96.	1.1	.0	.0	.0	.0	.0	.2	.0	.0
5. NE7	264.	.9	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	277.	.9	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	.8	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	96.	.9	.0	.0	.0	.0	.0	.1	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.5	.1	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.3	.0	.4	.0	.0	.0	.0	.0	.0
3. SW3	.2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	.1	.5	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	.1	.3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

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              CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                       JUNE 1989 VERSION
                       PAGE   1

                  JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM NP
                  RUN: Hour 1           (WORST CASE ANGLE)
            POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

     LINK       *  LINK COORDINATES (M)   *                EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ---------------*-------------------------*------------------------------
-
 A. NF          *     9  -450     9  -150 *  AG   1095   2.9     .0
19.5
 B. NA          *     9  -150     9     0 *  AG    659   3.9     .0
18.0
 C. ND          *     9     0     9   150 *  AG   1024   2.7     .0
13.5
 D. NE          *     9   150     9   450 *  AG   1024   2.9     .0
19.5
 E. SF          *    -9   450    -9   150 *  AG    488   2.9     .0
19.5
 F. SA          *    -9   150    -9     0 *  AG    341   3.9     .0
13.5
 G. SD          *    -9     0    -9  -150 *  AG    644   2.7     .0
13.5
 H. SE          *    -9  -150    -9  -450 *  AG    644   2.9     .0
19.5
 I. WF          *   450     7   150     7 *  AG   1022   2.9     .0
19.5
 J. WA          *   150     7     0     7 *  AG    917   3.1     .0
13.5
 K. WD          *     0     7  -150     7 *  AG   1368   2.5     .0
13.5
 L. WE          *  -150     7  -450     7 *  AG   1368   2.9     .0
19.5
```

M. EF	*	-450	-7	-150	-7	*	AG	2179	2.9	.0	19.5
N. EA	*	-150	-7	0	-7	*	AG	1740	3.3	.0	13.5
O. ED	*	0	-7	150	-7	*	AG	1748	2.6	.0	13.5
P. EE	*	150	-7	450	-7	*	AG	1748	2.9	.0	19.5
Q. NL	*	0	0	5	-150	*	AG	436	3.9	.0	9.9
R. SL	*	0	0	-5	150	*	AG	147	3.9	.0	9.9
S. WL	*	0	0	150	2	*	AG	105	3.1	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	439	3.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.2	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	276.	1.4	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.1	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	171.	1.0	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	262.	1.0	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	277.	1.1	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	.9	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	170.	.8	.1	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.4	.0	.2	.1	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.2	.1	.6	.0	.0	.0	.0	.0	.0
3. SW3	.2	.0	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.3	.0	.2	.1	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.1	.4	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	480	2.9	.0	19.5
B. NA	9	-150	9	0	AG	196	4.0	.0	18.0
C. ND	9	0	9	150	AG	425	2.7	.0	13.5
D. NE	9	150	9	450	AG	425	2.9	.0	19.5
E. SF	-9	450	-9	150	AG	928	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	769	4.2	.0	13.5
G. SD	-9	0	-9	-150	AG	1088	3.2	.0	13.5
H. SE	-9	-150	-9	-450	AG	1088	2.9	.0	19.5
I. WF	450	7	150	7	AG	1927	2.9	.0	19.5
J. WA	150	7	0	7	AG	1666	3.2	.0	13.5
K. WD	0	7	-150	7	AG	2304	2.6	.0	13.5
L. WE	-150	7	-450	7	AG	2304	2.9	.0	19.5

M. EF	*	-450	-7	-150	-7	*	AG	1675	2.9	.0	19.5
N. EA	*	-150	-7	0	-7	*	AG	1449	3.1	.0	13.5
O. ED	*	0	-7	150	-7	*	AG	1193	2.4	.0	13.5
P. EE	*	150	-7	450	-7	*	AG	1193	2.9	.0	19.5
Q. NL	*	0	0	5	-150	*	AG	284	4.0	.0	9.9
R. SL	*	0	0	-5	150	*	AG	159	4.0	.0	9.9
S. WL	*	0	0	150	2	*	AG	261	3.0	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	226	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	264.	1.3	.0	.0	.0	.0	.0	.1	.0	.0
2. SE3	276.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	84.	1.1	.0	.0	.0	.0	.0	.0	.2	.0
4. NW3	96.	1.3	.0	.0	.0	.0	.0	.2	.0	.0
5. NE7	264.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	277.	1.0	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	83.	.9	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	96.	1.0	.0	.0	.0	.0	.0	.2	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.3	.1	.5	.0	.0	.0	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	.1	.6	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.3	.0	.4	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	.2	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	9	-450	9	-150	*	AG	1355	2.9	.0	19.5
B. NA	*	9	-150	9	0	*	AG	740	3.9	.0	18.0
C. ND	*	9	0	9	150	*	AG	1106	2.9	.0	13.5
D. NE	*	9	150	9	450	*	AG	1106	2.9	.0	19.5
E. SF	*	-9	450	-9	150	*	AG	536	2.9	.0	19.5
F. SA	*	-9	150	-9	0	*	AG	389	3.9	.0	13.5
G. SD	*	-9	0	-9	-150	*	AG	804	2.7	.0	13.5
H. SE	*	-9	-150	-9	-450	*	AG	804	2.9	.0	19.5
I. WF	*	450	7	150	7	*	AG	1254	2.9	.0	19.5
J. WA	*	150	7	0	7	*	AG	1101	3.1	.0	13.5
K. WD	*	0	7	-150	7	*	AG	1763	2.6	.0	13.5
L. WE	*	-150	7	-450	7	*	AG	1763	2.9	.0	19.5

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 M. EF              *  -450    -7  -150    -7 *  AG   2671   2.9     .0
19.5
 N. EA              *  -150    -7     0    -7 *  AG   2177   3.5     .0
13.5
 O. ED              *     0    -7   150    -7 *  AG   2143   2.6     .0
13.5
 P. EE              *   150    -7   450    -7 *  AG   2143   2.9     .0
19.5
 Q. NL              *     0     0     5  -150 *  AG    615   4.0     .0
9.9
 R. SL              *     0     0    -5   150 *  AG    147   3.9     .0
9.9
 S. WL              *     0     0   150     2 *  AG    153   3.1     .0
9.9
 T. EL              *     0     0  -150    -2 *  AG    494   3.1     .0
9.9
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.4	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	276.	1.7	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	171.	1.2	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	262.	1.2	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	277.	1.4	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	169.	1.0	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.5	.0	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.2	.2	.8	.0	.0	.0	.0	.0	.0
3. SW3	.2	.0	.0	.0	.0	.0	.6	.1	.0	.0	.0	.0
4. NW3	.0	.0	.3	.0	.0	.3	.0	.0	.1	.0	.0	.0
5. NE7	.0	.0	.4	.0	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.1	.6	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.1	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 AM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	483	2.9	.0	19.5
B. NA	9	-150	9	0	AG	199	4.0	.0	18.0
C. ND	9	0	9	150	AG	435	2.7	.0	13.5
D. NE	9	150	9	450	AG	435	2.9	.0	19.5
E. SF	-9	450	-9	150	AG	947	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	783	4.2	.0	13.5
G. SD	-9	0	-9	-150	AG	1107	3.2	.0	13.5
H. SE	-9	-150	-9	-450	AG	1107	2.9	.0	19.5
I. WF	450	7	150	7	AG	1946	2.9	.0	19.5
J. WA	150	7	0	7	AG	1685	3.2	.0	13.5
K. WD	0	7	-150	7	AG	2309	2.6	.0	13.5
L. WE	-150	7	-450	7	AG	2309	2.9	.0	19.5
M. EF	-450	-7	-150	-7	AG	1691	2.9	.0	19.5
N. EA	-150	-7	0	-7	AG	1460	3.1	.0	13.5
O. ED	0	-7	150	-7	AG	1216	2.4	.0	13.5
P. EE	150	-7	450	-7	AG	1216	2.9	.0	19.5
Q. NL	0	0	5	-150	AG	284	4.0	.0	9.9
R. SL	0	0	-5	150	AG	164	4.0	.0	9.9
S. WL	0	0	150	2	AG	261	3.0	.0	9.9
T. EL	0	0	-150	-2	AG	231	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 AM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	264.	1.3	.0	.0	.0	.0	.0	.1	.0	.0
2. SE3	276.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
3. SW3	84.	1.1	.0	.0	.0	.0	.0	.0	.2	.0
4. NW3	96.	1.3	.0	.0	.0	.0	.0	.2	.0	.0
5. NE7	264.	1.1	.0	.0	.0	.0	.0	.1	.0	.0
6. SE7	277.	1.0	.0	.0	.0	.0	.0	.0	.1	.0
7. SW7	83.	.9	.0	.0	.0	.0	.0	.0	.2	.0
8. NW7	96.	1.0	.0	.0	.0	.0	.0	.2	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 AM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.3	.1	.5	.0	.0	.0	.0	.0	.0
3. SW3	*	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	*	.1	.6	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	*	.0	.0	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.3	.1	.4	.0	.0	.0	.0	.0	.0
7. SW7	*	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	*	.2	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 PM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	*	LINK COORDINATES (M) X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	9	-450	9	-150	*	AG	1367	2.9	.0	19.5
B. NA	*	9	-150	9	0	*	AG	754	3.9	.0	18.0
C. ND	*	9	0	9	150	*	AG	1130	2.9	.0	13.5
D. NE	*	9	150	9	450	*	AG	1130	2.9	.0	19.5
E. SF	*	-9	450	-9	150	*	AG	547	2.9	.0	19.5
F. SA	*	-9	150	-9	0	*	AG	396	3.9	.0	13.5
G. SD	*	-9	0	-9	-150	*	AG	812	2.7	.0	13.5
H. SE	*	-9	-150	-9	-450	*	AG	812	2.9	.0	19.5
I. WF	*	450	7	150	7	*	AG	1272	2.9	.0	19.5
J. WA	*	150	7	0	7	*	AG	1119	3.1	.0	13.5
K. WD	*	0	7	-150	7	*	AG	1778	2.5	.0	13.5
L. WE	*	-150	7	-450	7	*	AG	1778	2.9	.0	19.5
M. EF	*	-450	-7	-150	-7	*	AG	2706	2.9	.0	19.5
N. EA	*	-150	-7	0	-7	*	AG	2203	3.4	.0	13.5
O. ED	*	0	-7	150	-7	*	AG	2172	2.6	.0	13.5
P. EE	*	150	-7	450	-7	*	AG	2172	2.9	.0	19.5
Q. NL	*	0	0	5	-150	*	AG	613	4.0	.0	9.9
R. SL	*	0	0	-5	150	*	AG	151	3.9	.0	9.9
S. WL	*	0	0	150	2	*	AG	153	3.1	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	503	3.1	.0	9.9

□

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 PM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.4	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	276.	1.7	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.3	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	171.	1.2	.1	.0	.0	.0	.0	.0	.3	.0
5. NE7	262.	1.1	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	277.	1.4	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.1	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	169.	1.0	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 2 PM Nea
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.5	.0	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.2	.2	.8	.0	.0	.0	.0	.0	.0
3. SW3	.2	.0	.0	.0	.0	.0	.6	.1	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.2	.0	.0	.1	.0	.0	.0
5. NE7	.0	.0	.4	.0	.3	.2	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.2	.1	.5	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0
8. NW7	.0	.0	.2	.0	.0	.2	.0	.0	.1	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	444	2.9	.0	19.5
B. NA	9	-150	9	0	AG	196	4.0	.0	18.0
C. ND	9	0	9	150	AG	427	2.7	.0	13.5
D. NE	9	150	9	450	AG	427	2.9	.0	19.5
E. SF	-9	450	-9	150	AG	939	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	775	4.2	.0	13.5
G. SD	-9	0	-9	-150	AG	1021	2.8	.0	13.5
H. SE	-9	-150	-9	-450	AG	1021	2.9	.0	19.5
I. WF	450	7	150	7	AG	1927	2.9	.0	19.5
J. WA	150	7	0	7	AG	1629	3.1	.0	13.5
K. WD	0	7	-150	7	AG	2222	2.6	.0	13.5
L. WE	-150	7	-450	7	AG	2222	2.9	.0	19.5
M. EF	-450	-7	-150	-7	AG	1533	2.9	.0	19.5
N. EA	-150	-7	0	-7	AG	1309	3.1	.0	13.5
O. ED	0	-7	150	-7	AG	1173	2.4	.0	13.5
P. EE	150	-7	450	-7	AG	1173	2.9	.0	19.5
Q. NL	0	0	5	-150	AG	248	4.0	.0	9.9
R. SL	0	0	-5	150	AG	164	4.0	.0	9.9
S. WL	0	0	150	2	AG	298	3.0	.0	9.9
T. EL	0	0	-150	-2	AG	224	3.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	264.	1.3	.0	.0	.0	.0	.0	.1	.0	.0
2. SE3	276.	1.2	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.0	.0	.0	.0	.0	.0	.0	.2	.0
4. NW3	96.	1.2	.0	.0	.0	.0	.0	.2	.0	.0
5. NE7	264.	1.0	.0	.0	.0	.0	.0	.1	.0	.0
6. SE7	277.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	83.	.9	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	96.	1.0	.0	.0	.0	.0	.0	.2	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO DEL MAR HEIGHTS RD Ph 1 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.3	.1	.5	.0	.0	.0	.0	.0	.0
3. SW3	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	.1	.6	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
5. NE7	.0	.0	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	.2	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HEIGHTS RD Ph 1 P
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	1215	2.9	.0	19.5
B. NA	9	-150	9	0	AG	765	3.9	.0	18.0
C. ND	9	0	9	150	AG	1106	2.9	.0	13.5
D. NE	9	150	9	450	AG	1106	2.9	.0	19.5
E. SF	-9	450	-9	150	AG	520	2.9	.0	19.5
F. SA	-9	150	-9	0	AG	369	3.9	.0	13.5
G. SD	-9	0	-9	-150	AG	707	2.7	.0	13.5
H. SE	-9	-150	-9	-450	AG	707	2.9	.0	19.5
I. WF	450	7	150	7	AG	1152	2.9	.0	19.5
J. WA	150	7	0	7	AG	1007	3.1	.0	13.5
K. WD	0	7	-150	7	AG	1482	2.5	.0	13.5
L. WE	-150	7	-450	7	AG	1482	2.9	.0	19.5
M. EF	-450	-7	-150	-7	AG	2462	2.9	.0	19.5
N. EA	-150	-7	0	-7	AG	1984	3.4	.0	13.5
O. ED	0	-7	150	-7	AG	2054	2.6	.0	13.5
P. EE	150	-7	450	-7	AG	2054	2.9	.0	19.5
Q. NL	0	0	5	-150	AG	450	3.9	.0	9.9
R. SL	0	0	-5	150	AG	151	3.9	.0	9.9
S. WL	0	0	150	2	AG	145	3.1	.0	9.9
T. EL	0	0	-150	-2	AG	478	3.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HEIGHTS RD Ph 1 P
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	1.3	.0	.0	.2	.0	.0	.0	.0	.0
2. SE3	276.	1.5	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	84.	1.2	.0	.1	.0	.0	.0	.0	.1	.0
4. NW3	171.	1.1	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	262.	1.1	.0	.0	.2	.0	.0	.0	.0	.0
6. SE7	277.	1.2	.0	.1	.0	.0	.0	.0	.0	.0
7. SW7	84.	1.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	170.	.9	.1	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HEIGHTS RD Ph 1 P
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.4	.0	.3	.2	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.2	.1	.7	.0	.0	.0	.0	.0	.0
3. SW3	*	.2	.0	.0	.0	.0	.0	.6	.1	.0	.0	.0	.0
4. NW3	*	.0	.0	.2	.0	.0	.2	.0	.0	.1	.0	.0	.0
5. NE7	*	.0	.0	.3	.0	.2	.1	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.2	.1	.5	.0	.0	.0	.0	.0	.0
7. SW7	*	.2	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0
8. NW7	*	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE            VD=   .0 CM/S
  CLAS=     7 (G)             VS=   .0 CM/S
  MIXH= 1000. M              AMB=   .0 PPM
 SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

```
      LINK       *  LINK COORDINATES (M)   *                EF     H     W
   DESCRIPTION   *   X1     Y1     X2     Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
-
 A. NF           *     9  -450      9  -150 *  AG    469   1.2     .0
19.5
 B. NA           *     9  -150      9     0 *  AG    234   1.8     .0
18.0
 C. ND           *     9     0      9   150 *  AG    534   1.3     .0
13.5
 D. NE           *     9   150      9   450 *  AG    534   1.2     .0
19.5
 E. SF           *    -9   450     -9   150 *  AG   1120   1.2     .0
19.5
 F. SA           *    -9   150     -9     0 *  AG    950   1.9     .0
13.5
 G. SD           *    -9     0     -9  -150 *  AG   1197   1.5     .0
13.5
 H. SE           *    -9  -150     -9  -450 *  AG   1197   1.2     .0
19.5
 I. WF           *   450     7    150     7 *  AG   1926   1.2     .0
19.5
 J. WA           *   150     7      0     7 *  AG   1690   1.6     .0
13.5
 K. WD           *     0     7   -150     7 *  AG   2215   1.3     .0
13.5
 L. WE           *  -150     7   -450     7 *  AG   2215   1.2     .0
19.5
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```
 M. EF              *  -450    -7  -150    -7 *  AG   1633   1.2     .0
19.5
 N. EA              *  -150    -7     0    -7 *  AG   1399   1.6     .0
13.5
 O. ED              *     0    -7   150    -7 *  AG   1202   1.2     .0
13.5
 P. EE              *   150    -7   450    -7 *  AG   1202   1.2     .0
19.5
 Q. NL              *     0     0     5  -150 *  AG    235   1.8     .0
9.9
 R. SL              *     0     0    -5   150 *  AG    170   1.8     .0
9.9
 S. WL              *     0     0   150     2 *  AG    236   1.5     .0
9.9
 T. EL              *     0     0  -150    -2 *  AG    234   1.5     .0
9.9
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	.6	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	.6	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	83.	.5	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	96.	.6	.0	.0	.0	.0	.0	.1	.0	.0
5. NE7	262.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	278.	.5	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	8.	.5	.0	.0	.0	.0	.0	.2	.0	.0
8. NW7	98.	.5	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.1	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW3	*	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	1474	1.2	.0	19.5
B. NA	9	-150	9	0	AG	1023	1.8	.0	18.0
C. ND	9	0	9	150	AG	1420	1.5	.0	13.5
D. NE	9	150	9	450	AG	1420	1.2	.0	19.5
E. SF	-9	450	-9	150	AG	690	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	500	1.8	.0	13.5
G. SD	-9	0	-9	-150	AG	803	1.3	.0	13.5
H. SE	-9	-150	-9	-450	AG	803	1.2	.0	19.5
I. WF	450	7	150	7	AG	1244	1.2	.0	19.5
J. WA	150	7	0	7	AG	1120	1.6	.0	13.5
K. WD	0	7	-150	7	AG	1661	1.3	.0	13.5
L. WE	-150	7	-450	7	AG	1661	1.2	.0	19.5

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 M. EF           *  -450    -7  -150    -7 *  AG   2416   1.2     .0
19.5
 N. EA           *  -150    -7     0    -7 *  AG   1936   1.6     .0
13.5
 O. ED           *     0    -7   150    -7 *  AG   1940   1.3     .0
13.5
 P. EE           *   150    -7   450    -7 *  AG   1940   1.2     .0
19.5
 Q. NL           *     0     0     5  -150 *  AG    451   1.8     .0
9.9
 R. SL           *     0     0    -5   150 *  AG    190   1.8     .0
9.9
 S. WL           *     0     0   150     2 *  AG    124   1.5     .0
9.9
 T. EL           *     0     0  -150    -2 *  AG    480   1.5     .0
9.9
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	.7	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	276.	.7	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	84.	.6	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	171.	.6	.0	.0	.0	.0	.0	.0	.1	.0
5. NE7	262.	.5	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	278.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	82.	.5	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	168.	.5	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*	CONC/LINK (PPM)											
1. NE3	*	.0	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
   BRG= WORST CASE           VD=   .0 CM/S
  CLAS=     7 (G)            VS=   .0 CM/S
  MIXH= 1000. M             AMB=   .0 PPM
 SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	581	1.2	.0	19.5
B. NA	9	-150	9	0	AG	264	1.9	.0	18.0
C. ND	9	0	9	150	AG	564	1.3	.0	13.5
D. NE	9	150	9	450	AG	564	1.2	.0	19.5
E. SF	-9	450	-9	150	AG	1189	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	1019	1.9	.0	13.5
G. SD	-9	0	-9	-150	AG	1425	1.8	.0	13.5
H. SE	-9	-150	-9	-450	AG	1425	1.2	.0	19.5
I. WF	450	7	150	7	AG	2257	1.2	.0	19.5
J. WA	150	7	0	7	AG	1953	1.6	.0	13.5
K. WD	0	7	-150	7	AG	2606	1.3	.0	13.5
L. WE	-150	7	-450	7	AG	2606	1.2	.0	19.5

M. EF	*	-450	-7	-150	-7	*	AG	1915	1.2	.0
19.5										
N. EA	*	-150	-7	0	-7	*	AG	1661	1.6	.0
13.5										
O. ED	*	0	-7	150	-7	*	AG	1347	1.2	.0
13.5										
P. EE	*	150	-7	450	-7	*	AG	1347	1.2	.0
19.5										
Q. NL	*	0	0	5	-150	*	AG	317	1.9	.0
9.9										
R. SL	*	0	0	-5	150	*	AG	170	1.9	.0
9.9										
S. WL	*	0	0	150	2	*	AG	304	1.5	.0
9.9										
T. EL	*	0	0	-150	-2	*	AG	254	1.5	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	263.	.7	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	276.	.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	82.	.6	.0	.0	.0	.0	.0	.0	.1	.0
4. NW3	173.	.7	.0	.0	.0	.0	.0	.0	.3	.0
5. NE7	262.	.6	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	278.	.6	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	82.	.5	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	171.	.6	.0	.0	.0	.0	.0	.0	.2	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

	*	CONC/LINK (PPM)										
RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.1	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	9	-450	9	-150	AG	1799	1.2	.0	19.5
B. NA	9	-150	9	0	AG	1123	1.8	.0	18.0
C. ND	9	0	9	150	AG	1520	1.5	.0	13.5
D. NE	9	150	9	450	AG	1520	1.2	.0	19.5
E. SF	-9	450	-9	150	AG	761	1.2	.0	19.5
F. SA	-9	150	-9	0	AG	571	1.8	.0	13.5
G. SD	-9	0	-9	-150	AG	1041	1.3	.0	13.5
H. SE	-9	-150	-9	-450	AG	1041	1.2	.0	19.5
I. WF	450	7	150	7	AG	1588	1.2	.0	19.5
J. WA	150	7	0	7	AG	1393	1.6	.0	13.5
K. WD	0	7	-150	7	AG	2206	1.3	.0	13.5
L. WE	-150	7	-450	7	AG	2206	1.2	.0	19.5

M. EF	*	-450	-7	-150	-7	*	AG	3046	1.2	.0
19.5										
N. EA	*	-150	-7	0	-7	*	AG	2499	1.8	.0
13.5										
O. ED	*	0	-7	150	-7	*	AG	2427	1.3	.0
13.5										
P. EE	*	150	-7	450	-7	*	AG	2427	1.2	.0
19.5										
Q. NL	*	0	0	5	-150	*	AG	676	1.8	.0
9.9										
R. SL	*	0	0	-5	150	*	AG	190	1.8	.0
9.9										
S. WL	*	0	0	150	2	*	AG	195	1.5	.0
9.9										
T. EL	*	0	0	-150	-2	*	AG	547	1.6	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	19	17	1.8
2. SE3	19	-17	1.8
3. SW3	-19	-17	1.8
4. NW3	-19	17	1.8
5. NE7	23	20	1.8
6. SE7	23	-20	1.8
7. SW7	-23	-20	1.8
8. NW7	-23	20	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	262.	.8	.0	.0	.1	.0	.0	.0	.0	.0
2. SE3	277.	1.0	.0	.1	.0	.0	.0	.0	.0	.0
3. SW3	83.	.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	171.	.7	.0	.0	.0	.0	.0	.0	.2	.0
5. NE7	261.	.7	.0	.0	.1	.0	.0	.0	.0	.0
6. SE7	278.	.8	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	82.	.6	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	168.	.6	.0	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION

JOB: EL CAMINO REAL DEL MAR HTS RD 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.3	.0	.1	.1	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.1	.0	.5	.0	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
4. NW3	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
8. NW7	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	340	2.9	.0	15.0
B. NA	5	-150	5	0	AG	337	3.0	.0	9.9
C. ND	5	0	5	150	AG	272	2.4	.0	9.9
D. NE	5	150	5	450	AG	272	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	942	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	927	3.1	.0	9.9
G. SD	-5	0	-5	-150	AG	1134	2.5	.0	9.9
H. SE	-5	-150	-5	-450	AG	1134	2.9	.0	15.0
I. WF	450	2	150	2	AG	227	2.9	.0	10.5
J. WA	150	2	0	2	AG	27	4.4	.0	9.9
K. WD	0	2	-150	2	AG	8	3.3	.0	9.9
L. WE	-150	2	-450	2	AG	8	2.9	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	30	2.9	.0
10.5										
N. EA	*	-150	-2	0	-2	*	AG	20	4.4	.0
9.9										
O. ED	*	0	-2	150	-2	*	AG	125	3.3	.0
9.9										
P. EE	*	150	-2	450	-2	*	AG	125	2.9	.0
10.5										
Q. NL	*	0	0	2	-150	*	AG	3	3.0	.0
9.9										
R. SL	*	0	0	-2	150	*	AG	15	3.0	.0
9.9										
S. WL	*	0	0	150	2	*	AG	200	4.4	.0
9.9										
T. EL	*	0	0	-150	-2	*	AG	10	4.4	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.2	.0	.0	.0	.0	.0	.2
2. SE3	355.	.5	.0	.0	.1	.0	.2	.0	.0	.0
3. SW3	5.	.6	.0	.0	.0	.0	.0	.4	.0	.0
4. NW3	175.	.6	.0	.0	.0	.0	.0	.0	.4	.1
5. NE7	186.	.5	.0	.1	.0	.0	.0	.0	.0	.2
6. SE7	354.	.4	.0	.0	.0	.0	.1	.0	.0	.0
7. SW7	84.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	175.	.4	.0	.0	.0	.0	.0	.0	.2	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*						CONC/LINK (PPM)						
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
   U=    .5 M/S            Z0= 100. CM             ALT=     0. (M)
 BRG= WORST CASE           VD=   .0 CM/S
CLAS=     7 (G)            VS=   .0 CM/S
MIXH= 1000. M             AMB=   .0 PPM
SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	845	2.9	.0	15.0
B. NA	5	-150	5	0	AG	833	3.1	.0	9.9
C. ND	5	0	5	150	AG	748	2.4	.0	9.9
D. NE	5	150	5	450	AG	748	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	414	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	399	3.0	.0	9.9
G. SD	-5	0	-5	-150	AG	448	2.4	.0	9.9
H. SE	-5	-150	-5	-450	AG	448	2.9	.0	15.0
I. WF	450	2	150	2	AG	77	2.9	.0	10.5
J. WA	150	2	0	2	AG	22	4.5	.0	9.9
K. WD	0	2	-150	2	AG	34	4.5	.0	9.9
L. WE	-150	2	-450	2	AG	34	2.9	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	14	2.9	.0	10.5
N. EA	*	-150	-2	0	-2	*	AG	9	4.5	.0	9.9
O. ED	*	0	-2	150	-2	*	AG	120	4.5	.0	9.9
P. EE	*	150	-2	450	-2	*	AG	120	2.9	.0	10.5
Q. NL	*	0	0	2	-150	*	AG	12	3.0	.0	9.9
R. SL	*	0	0	-2	150	*	AG	15	3.0	.0	9.9
S. WL	*	0	0	150	2	*	AG	55	4.5	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	5	4.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.4	.0	.0	.0	.0	.0	.0
2. SE3	185.	.6	.0	.3	.0	.0	.0	.0	.0	.0
3. SW3	175.	.4	.2	.0	.0	.0	.0	.0	.2	.0
4. NW3	175.	.5	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	186.	.4	.0	.2	.0	.0	.0	.0	.0	.0
7. SW7	174.	.4	.2	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.4	.1	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
     U=    .5 M/S              Z0= 100. CM            ALT=     0. (M)
   BRG= WORST CASE             VD=   .0 CM/S
  CLAS=     7 (G)              VS=   .0 CM/S
  MIXH= 1000. M               AMB=   .0 PPM
 SIGTH=    5. DEGREES        TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	*	X1	Y1	X2	Y2	*	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	*	5	-450	5	-150	*	AG	371	2.9	.0	15.0
B. NA	*	5	-150	5	0	*	AG	368	3.0	.0	9.9
C. ND	*	5	0	5	150	*	AG	303	2.4	.0	9.9
D. NE	*	5	150	5	450	*	AG	303	2.9	.0	15.0
E. SF	*	-5	450	-5	150	*	AG	951	2.9	.0	15.0
F. SA	*	-5	150	-5	0	*	AG	936	3.1	.0	9.9
G. SD	*	-5	0	-5	-150	*	AG	1143	2.5	.0	9.9
H. SE	*	-5	-150	-5	-450	*	AG	1143	2.9	.0	15.0
I. WF	*	450	2	150	2	*	AG	227	2.9	.0	10.5
J. WA	*	150	2	0	2	*	AG	27	4.5	.0	9.9
K. WD	*	0	2	-150	2	*	AG	8	3.4	.0	9.9
L. WE	*	-150	2	-450	2	*	AG	8	2.9	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	30	2.9	.0	10.5
N. EA	*	-150	-2	0	-2	*	AG	20	4.5	.0	9.9
O. ED	*	0	-2	150	-2	*	AG	125	3.4	.0	9.9
P. EE	*	150	-2	450	-2	*	AG	125	2.9	.0	10.5
Q. NL	*	0	0	2	-150	*	AG	3	3.0	.0	9.9
R. SL	*	0	0	-2	150	*	AG	15	3.0	.0	9.9
S. WL	*	0	0	150	2	*	AG	200	4.5	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	10	4.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.2	.0	.0	.0	.0	.0	.2
2. SE3	355.	.5	.0	.0	.1	.0	.2	.0	.0	.0
3. SW3	5.	.6	.0	.0	.0	.0	.0	.4	.0	.0
4. NW3	175.	.6	.0	.0	.0	.0	.0	.0	.4	.1
5. NE7	186.	.5	.0	.1	.0	.0	.0	.0	.0	.2
6. SE7	354.	.4	.0	.0	.0	.0	.1	.0	.0	.0
7. SW7	84.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	175.	.5	.0	.0	.0	.0	.0	.0	.2	.1

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
		CONC/LINK (PPM)											
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	869	2.9	.0	15.0
B. NA	5	-150	5	0	AG	857	3.1	.0	9.9
C. ND	5	0	5	150	AG	772	2.4	.0	9.9
D. NE	5	150	5	450	AG	772	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	455	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	440	3.0	.0	9.9
G. SD	-5	0	-5	-150	AG	489	2.4	.0	9.9
H. SE	-5	-150	-5	-450	AG	489	2.9	.0	15.0
I. WF	450	2	150	2	AG	77	2.9	.0	10.5
J. WA	150	2	0	2	AG	22	4.5	.0	9.9
K. WD	0	2	-150	2	AG	34	4.5	.0	9.9
L. WE	-150	2	-450	2	AG	34	2.9	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	14	2.9	.0
10.5										
N. EA	*	-150	-2	0	-2	*	AG	9	4.5	.0
9.9										
O. ED	*	0	-2	150	-2	*	AG	120	4.5	.0
9.9										
P. EE	*	150	-2	450	-2	*	AG	120	2.9	.0
10.5										
Q. NL	*	0	0	2	-150	*	AG	12	3.0	.0
9.9										
R. SL	*	0	0	-2	150	*	AG	15	3.0	.0
9.9										
S. WL	*	0	0	150	2	*	AG	55	4.5	.0
9.9										
T. EL	*	0	0	-150	-2	*	AG	5	4.5	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.4	.0	.0	.0	.0	.0	.0
2. SE3	185.	.6	.0	.3	.0	.0	.0	.0	.0	.1
3. SW3	175.	.5	.2	.0	.0	.0	.0	.0	.2	.0
4. NW3	175.	.5	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	186.	.4	.1	.2	.0	.0	.0	.0	.0	.0
7. SW7	174.	.4	.2	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.4	.1	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2015 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	377	2.9	.0	15.0
B. NA	5	-150	5	0	AG	374	3.0	.0	9.9
C. ND	5	0	5	150	AG	307	2.4	.0	9.9
D. NE	5	150	5	450	AG	307	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	978	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	963	3.1	.0	9.9
G. SD	-5	0	-5	-150	AG	1176	2.5	.0	9.9
H. SE	-5	-150	-5	-450	AG	1176	2.9	.0	15.0
I. WF	450	2	150	2	AG	234	2.9	.0	10.5
J. WA	150	2	0	2	AG	28	4.5	.0	9.9
K. WD	0	2	-150	2	AG	8	3.4	.0	9.9
L. WE	-150	2	-450	2	AG	8	2.9	.0	10.5
M. EF	-450	-2	-150	-2	AG	30	2.9	.0	10.5
N. EA	-150	-2	0	-2	AG	20	4.5	.0	9.9
O. ED	0	-2	150	-2	AG	128	3.4	.0	9.9
P. EE	150	-2	450	-2	AG	128	2.9	.0	10.5
Q. NL	0	0	2	-150	AG	3	3.0	.0	9.9
R. SL	0	0	-2	150	AG	15	3.0	.0	9.9
S. WL	0	0	150	2	AG	206	4.5	.0	9.9
T. EL	0	0	-150	-2	AG	10	4.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 AM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.2	.0	.0	.0	.0	.0	.2
2. SE3	355.	.5	.0	.0	.1	.0	.2	.0	.0	.0
3. SW3	5.	.6	.0	.0	.0	.0	.0	.4	.0	.0
4. NW3	175.	.6	.0	.0	.0	.0	.0	.0	.4	.1
5. NE7	186.	.5	.0	.1	.0	.0	.0	.0	.0	.2
6. SE7	354.	.4	.0	.0	.0	.0	.1	.0	.0	.0
7. SW7	84.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	175.	.5	.0	.0	.0	.0	.0	.0	.2	.1

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   3

              JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 AM Ne
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

           *                         CONC/LINK
           *                           (PPM)
 RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
-----------*-------------------------------------------------------------
1. NE3     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
5. NE7     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
6. SE7     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
7. SW7     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
8. NW7     *  .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 PM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S              Z0= 100. CM             ALT=     0. (M)
    BRG= WORST CASE             VD=   .0 CM/S
   CLAS=     7 (G)              VS=   .0 CM/S
   MIXH= 1000. M               AMB=   .0 PPM
  SIGTH=    5. DEGREES        TEMP= 15.6 DEGREE (C)
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II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	892	2.9	.0	15.0
B. NA	5	-150	5	0	AG	880	3.1	.0	9.9
C. ND	5	0	5	150	AG	792	2.4	.0	9.9
D. NE	5	150	5	450	AG	792	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	464	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	449	3.0	.0	9.9
G. SD	-5	0	-5	-150	AG	500	2.4	.0	9.9
H. SE	-5	-150	-5	-450	AG	500	2.9	.0	15.0
I. WF	450	2	150	2	AG	79	2.9	.0	10.5
J. WA	150	2	0	2	AG	22	4.5	.0	9.9
K. WD	0	2	-150	2	AG	34	4.5	.0	9.9
L. WE	-150	2	-450	2	AG	34	2.9	.0	10.5
M. EF	-450	-2	-150	-2	AG	14	2.9	.0	10.5
N. EA	-150	-2	0	-2	AG	9	4.5	.0	9.9
O. ED	0	-2	150	-2	AG	123	4.5	.0	9.9
P. EE	150	-2	450	-2	AG	123	2.9	.0	10.5
Q. NL	0	0	2	-150	AG	12	3.0	.0	9.9
R. SL	0	0	-2	150	AG	15	3.0	.0	9.9
S. WL	0	0	150	2	AG	57	4.5	.0	9.9
T. EL	0	0	-150	-2	AG	5	4.5	.0	9.9

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              CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                       JUNE 1989 VERSION
                       PAGE   2

                  JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 PM Ne
                  RUN: Hour 1           (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide
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III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.7	.0	.4	.0	.0	.0	.0	.0	.0
2. SE3	185.	.6	.0	.4	.0	.0	.0	.0	.0	.1
3. SW3	175.	.5	.2	.0	.0	.0	.0	.0	.2	.0
4. NW3	175.	.5	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	186.	.4	.1	.2	.0	.0	.0	.0	.0	.1
7. SW7	174.	.4	.2	.0	.0	.0	.0	.0	.1	.0
8. NW7	174.	.4	.1	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 2 PM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 near
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	373	2.9	.0	15.0
B. NA	5	-150	5	0	AG	370	3.0	.0	9.9
C. ND	5	0	5	150	AG	303	2.4	.0	9.9
D. NE	5	150	5	450	AG	303	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	974	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	959	3.1	.0	9.9
G. SD	-5	0	-5	-150	AG	1172	2.5	.0	9.9
H. SE	-5	-150	-5	-450	AG	1172	2.9	.0	15.0
I. WF	450	2	150	2	AG	234	2.9	.0	10.5
J. WA	150	2	0	2	AG	28	4.5	.0	9.9
K. WD	0	2	-150	2	AG	8	3.4	.0	9.9
L. WE	-150	2	-450	2	AG	8	2.9	.0	10.5
M. EF	-450	-2	-150	-2	AG	30	2.9	.0	10.5
N. EA	-150	-2	0	-2	AG	20	4.5	.0	9.9
O. ED	0	-2	150	-2	AG	128	3.4	.0	9.9
P. EE	150	-2	450	-2	AG	128	2.9	.0	10.5
Q. NL	0	0	2	-150	AG	3	3.0	.0	9.9
R. SL	0	0	-2	150	AG	15	3.0	.0	9.9
S. WL	0	0	150	2	AG	206	4.5	.0	9.9
T. EL	0	0	-150	-2	AG	10	4.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 near
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.2	.0	.0	.0	.0	.0	.2
2. SE3	355.	.5	.0	.0	.1	.0	.2	.0	.0	.0
3. SW3	5.	.6	.0	.0	.0	.0	.0	.4	.0	.0
4. NW3	175.	.6	.0	.0	.0	.0	.0	.0	.4	.1
5. NE7	186.	.5	.0	.1	.0	.0	.0	.0	.0	.2
6. SE7	354.	.4	.0	.0	.0	.0	.1	.0	.0	.0
7. SW7	84.	.4	.0	.0	.0	.0	.0	.0	.1	.0
8. NW7	175.	.5	.0	.0	.0	.0	.0	.0	.2	.1

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   3

              JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 near
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide


 IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

            *                        CONC/LINK
            *                          (PPM)
 RECEPTOR   *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
5. NE7      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
6. SE7      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
7. SW7      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
8. NW7      *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 PM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	879	2.9	.0	15.0
B. NA	5	-150	5	0	AG	867	3.1	.0	9.9
C. ND	5	0	5	150	AG	779	2.4	.0	9.9
D. NE	5	150	5	450	AG	779	2.9	.0	15.0
E. SF	-5	450	-5	150	AG	452	2.9	.0	15.0
F. SA	-5	150	-5	0	AG	437	3.0	.0	9.9
G. SD	-5	0	-5	-150	AG	488	2.4	.0	9.9
H. SE	-5	-150	-5	-450	AG	488	2.9	.0	15.0
I. WF	450	2	150	2	AG	79	2.9	.0	10.5
J. WA	150	2	0	2	AG	22	4.5	.0	9.9
K. WD	0	2	-150	2	AG	34	4.5	.0	9.9
L. WE	-150	2	-450	2	AG	34	2.9	.0	10.5
M. EF	-450	-2	-150	-2	AG	14	2.9	.0	10.5
N. EA	-150	-2	0	-2	AG	9	4.5	.0	9.9
O. ED	0	-2	150	-2	AG	123	4.5	.0	9.9
P. EE	150	-2	450	-2	AG	123	2.9	.0	10.5
Q. NL	0	0	2	-150	AG	12	3.0	.0	9.9
R. SL	0	0	-2	150	AG	15	3.0	.0	9.9
S. WL	0	0	150	2	AG	57	4.5	.0	9.9
T. EL	0	0	-150	-2	AG	5	4.5	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 PM Ne
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.6	.0	.4	.0	.0	.0	.0	.0	.0
2. SE3	185.	.6	.0	.3	.0	.0	.0	.0	.0	.1
3. SW3	175.	.5	.2	.0	.0	.0	.0	.0	.2	.0
4. NW3	175.	.5	.1	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.5	.0	.2	.0	.0	.0	.0	.0	.0
6. SE7	186.	.4	.1	.2	.0	.0	.0	.0	.0	.0
7. SW7	174.	.4	.2	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.4	.1	.0	.0	.0	.0	.0	.1	.0

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CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
         JUNE 1989 VERSION
         PAGE   3

    JOB: CARMEL CREEK RD DEL MAR TRAIL Ph 1 PM Ne
    RUN: Hour 1           (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide
```

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	333	1.2	.0	15.0
B. NA	5	-150	5	0	AG	330	1.5	.0	9.9
C. ND	5	0	5	150	AG	267	1.2	.0	9.9
D. NE	5	150	5	450	AG	267	1.2	.0	15.0
E. SF	-5	450	-5	150	AG	924	1.2	.0	15.0
F. SA	-5	150	-5	0	AG	909	1.5	.0	9.9
G. SD	-5	0	-5	-150	AG	1112	1.2	.0	9.9
H. SE	-5	-150	-5	-450	AG	1112	1.2	.0	15.0
I. WF	450	2	150	2	AG	223	1.2	.0	10.5
J. WA	150	2	0	2	AG	27	2.0	.0	9.9
K. WD	0	2	-150	2	AG	8	1.6	.0	9.9
L. WE	-150	2	-450	2	AG	8	1.2	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	30	1.2	.0	10.5
N. EA	*	-150	-2	0	-2	*	AG	20	2.0	.0	9.9
O. ED	*	0	-2	150	-2	*	AG	123	1.6	.0	9.9
P. EE	*	150	-2	450	-2	*	AG	123	1.2	.0	10.5
Q. NL	*	0	0	2	-150	*	AG	3	1.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	15	1.5	.0	9.9
S. WL	*	0	0	150	2	*	AG	196	2.0	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	10	2.0	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.2	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	5.	.3	.0	.0	.0	.0	.0	.2	.0	.0
4. NW3	175.	.3	.0	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	353.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	84.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.2	.0	.0	.0	.0	.0	.0	.1	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*						CONC/LINK (PPM)						
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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             CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                      JUNE 1989 VERSION
                      PAGE   1

                 JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM NP
                 RUN: Hour 1           (WORST CASE ANGLE)
           POLLUTANT: Carbon Monoxide


   I.  SITE VARIABLES

         U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
       BRG= WORST CASE            VD=   .0 CM/S
      CLAS=     7 (G)             VS=   .0 CM/S
      MIXH= 1000. M              AMB=   .0 PPM
     SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)


  II.  LINK VARIABLES

      LINK       *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION   *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
 ----------------*-------------------------*------------------------------
-
 A. NF           *     5  -450     5  -150 *  AG    828   1.2     .0
15.0
 B. NA           *     5  -150     5     0 *  AG    816   1.5     .0
9.9
 C. ND           *     5     0     5   150 *  AG    733   1.2     .0
9.9
 D. NE           *     5   150     5   450 *  AG    733   1.2     .0
15.0
 E. SF           *    -5   450    -5   150 *  AG    406   1.2     .0
15.0
 F. SA           *    -5   150    -5     0 *  AG    391   1.5     .0
9.9
 G. SD           *    -5     0    -5  -150 *  AG    439   1.2     .0
9.9
 H. SE           *    -5  -150    -5  -450 *  AG    439   1.2     .0
15.0
 I. WF           *   450     2   150     2 *  AG     76   1.2     .0
10.5
 J. WA           *   150     2     0     2 *  AG     22   2.1     .0
9.9
 K. WD           *     0     2  -150     2 *  AG     34   2.1     .0
9.9
 L. WE           *  -150     2  -450     2 *  AG     34   1.2     .0
10.5
```

M. EF	*	-450	-2	-150	-2	*	AG	14	1.2	.0
10.5										
N. EA	*	-150	-2	0	-2	*	AG	9	2.1	.0
9.9										
O. ED	*	0	-2	150	-2	*	AG	118	2.1	.0
9.9										
P. EE	*	150	-2	450	-2	*	AG	118	1.2	.0
10.5										
Q. NL	*	0	0	2	-150	*	AG	12	1.5	.0
9.9										
R. SL	*	0	0	-2	150	*	AG	15	1.5	.0
9.9										
S. WL	*	0	0	150	2	*	AG	54	2.1	.0
9.9										
T. EL	*	0	0	-150	-2	*	AG	5	2.1	.0
9.9										

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.3	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	185.	.3	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	175.	.2	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	186.	.2	.0	.1	.0	.0	.0	.0	.0	.0
6. SE7	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM NP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	I	J	K	L	M	N	O	P	Q	R	S	T
	CONC/LINK (PPM)											
1. NE3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

U= .5 M/S	Z0= 100. CM	ALT= 0. (M)
BRG= WORST CASE	VD= .0 CM/S	
CLAS= 7 (G)	VS= .0 CM/S	
MIXH= 1000. M	AMB= .0 PPM	
SIGTH= 5. DEGREES	TEMP= 15.6 DEGREE (C)	

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	367	1.2	.0	15.0
B. NA	5	-150	5	0	AG	364	1.5	.0	9.9
C. ND	5	0	5	150	AG	301	1.2	.0	9.9
D. NE	5	150	5	450	AG	301	1.2	.0	15.0
E. SF	-5	450	-5	150	AG	939	1.2	.0	15.0
F. SA	-5	150	-5	0	AG	924	1.5	.0	9.9
G. SD	-5	0	-5	-150	AG	1127	1.2	.0	9.9
H. SE	-5	-150	-5	-450	AG	1127	1.2	.0	15.0
I. WF	450	2	150	2	AG	223	1.2	.0	10.5
J. WA	150	2	0	2	AG	27	2.1	.0	9.9
K. WD	0	2	-150	2	AG	8	1.6	.0	9.9
L. WE	-150	2	-450	2	AG	8	1.2	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	30	1.2	.0	10.5
N. EA	*	-150	-2	0	-2	*	AG	20	2.1	.0	9.9
O. ED	*	0	-2	150	-2	*	AG	123	1.6	.0	9.9
P. EE	*	150	-2	450	-2	*	AG	123	1.2	.0	10.5
Q. NL	*	0	0	2	-150	*	AG	3	1.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	15	1.5	.0	9.9
S. WL	*	0	0	150	2	*	AG	196	2.1	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	10	2.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 2

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.3	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	5.	.3	.0	.0	.0	.0	.0	.2	.0	.0
4. NW3	175.	.3	.0	.0	.0	.0	.0	.0	.2	.0
5. NE7	186.	.2	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	353.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	84.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.2	.0	.0	.0	.0	.0	.0	.1	.0

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            CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                     JUNE 1989 VERSION
                     PAGE   3

                JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 AM WP
                RUN: Hour 1           (WORST CASE ANGLE)
          POLLUTANT: Carbon Monoxide


  IV.  MODEL RESULTS (WORST CASE WIND ANGLE)     (CONT.)

               *                        CONC/LINK
               *                          (PPM)
  RECEPTOR     *   I    J    K    L    M    N    O    P    Q    R    S    T
 ------------*------------------------------------------------------------
-
 1. NE3        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 2. SE3        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 3. SW3        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 4. NW3        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 5. NE7        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 6. SE7        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 7. SW7        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
 8. NW7        *   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
.0
```

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

I. SITE VARIABLES

```
      U=    .5 M/S             Z0= 100. CM             ALT=     0. (M)
    BRG= WORST CASE            VD=   .0 CM/S
   CLAS=     7 (G)             VS=   .0 CM/S
   MIXH= 1000. M              AMB=   .0 PPM
  SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)
```

II. LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
A. NF	5	-450	5	-150	AG	864	1.2	.0	15.0
B. NA	5	-150	5	0	AG	852	1.5	.0	9.9
C. ND	5	0	5	150	AG	769	1.2	.0	9.9
D. NE	5	150	5	450	AG	769	1.2	.0	15.0
E. SF	-5	450	-5	150	AG	456	1.2	.0	15.0
F. SA	-5	150	-5	0	AG	441	1.5	.0	9.9
G. SD	-5	0	-5	-150	AG	489	1.2	.0	9.9
H. SE	-5	-150	-5	-450	AG	489	1.2	.0	15.0
I. WF	450	2	150	2	AG	76	1.2	.0	10.5
J. WA	150	2	0	2	AG	22	2.1	.0	9.9
K. WD	0	2	-150	2	AG	34	2.1	.0	9.9
L. WE	-150	2	-450	2	AG	34	1.2	.0	10.5

M. EF	*	-450	-2	-150	-2	*	AG	14	1.2	.0	10.5
N. EA	*	-150	-2	0	-2	*	AG	9	2.1	.0	9.9
O. ED	*	0	-2	150	-2	*	AG	118	2.1	.0	9.9
P. EE	*	150	-2	450	-2	*	AG	118	1.2	.0	10.5
Q. NL	*	0	0	2	-150	*	AG	12	1.5	.0	9.9
R. SL	*	0	0	-2	150	*	AG	15	1.5	.0	9.9
S. WL	*	0	0	150	2	*	AG	54	2.1	.0	9.9
T. EL	*	0	0	-150	-2	*	AG	5	2.1	.0	9.9

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
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JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE3	12	8	1.8
2. SE3	12	-8	1.8
3. SW3	-12	-8	1.8
4. NW3	-12	8	1.8
5. NE7	16	11	1.8
6. SE7	16	-11	1.8
7. SW7	-16	-11	1.8
8. NW7	-16	11	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE3	185.	.3	.0	.2	.0	.0	.0	.0	.0	.0
2. SE3	185.	.3	.0	.2	.0	.0	.0	.0	.0	.0
3. SW3	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	175.	.2	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	186.	.2	.0	.1	.0	.0	.0	.0	.0	.0
6. SE7	354.	.2	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	174.	.2	.0	.0	.0	.0	.0	.0	.0	.0

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 3

JOB: CARMEL CREEK RD DEL MAR TRAIL 2030 PM WP
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

IV. MODEL RESULTS (WORST CASE WIND ANGLE) (CONT.)

RECEPTOR	*	I	J	K	L	M	N	O	P	Q	R	S	T
	*						CONC/LINK (PPM)						
1. NE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. SE3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5. NE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
6. SE7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7. SW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8. NW7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

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Energy Usage

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\day)	Emission Factors (lbs/MWh) [b] CO_2 804.54	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
					Emissions from Electricity (lbs/day)			
Project								
Office	536.0	12.95	6,941,200	19.017	15299.926	0.127	0.070	15324.293
Retail	220.0	13.55	2,981,000	8.167	6570.777	0.055	0.030	6581.232
Hotel/Motel	150.0	9.95	1,492,500	4.089	3289.797	0.027	0.015	3295.014
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000
Miscellaneous	40.0	10.5	420,000	1.151	925.772	0.008	0.004	927.180
Residential (DU)	608.0	5,627	3,420,912	9.372	7540.440	0.063	0.035	7552.613
Total Project			**15,255,612**	**41.796**	**33,626.71**	**0.28**	**0.15**	**33,680.33**
Net Emissions From Electricity Usage (lbs/day)					**33626.71**	**0.28**	**0.15**	**33680.33**
Net Emissions From Electricity Usage (MT/yr)					5567.28592	0.046357	0.025496	5567.35777

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [d] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (Btu/day)[f]	Emission Factors (kg/MMBtu) [e] CO_2 53.05	CH_4 0.0059	N_2O 0.0001	CO_2e 21/310[c]
					Emissions from Natural Gas (lbs/day)			
Project								
Office	536.0	2.0	**1,072,000**	**36,662,400**	4287.854	0.477	0.008	4300.374
Retail	220.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Hotel/Motel	150.0	4.8	**720,000**	**24,624,000**	2879.902	0.320	0.005	2888.311
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Miscellaneous	40.0	2.9	**116,000**	**3,967,200**	463.984	0.052	0.001	465.339
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000
Residential (Multi-Family DU)	608.0	4,012	**2,438,992**	**83,413,526**	9755.637	1.085	0.018	9784.122
Total Project			**4,346,992**	**148,667,126**	**17,387.38**	**1.93**	**0.03**	**17,438.15**
Net Emissions From Natural Gas Usage					**17387.38**	**1.93**	**0.03**	**17438.15**
Net Emissions From Natural Gas Usage (MT/yr)					2878.67874	0.320155	0.005426	2879.00432

Summary of Stationary Emissions

	CO_2	CH_4	N_2O	CO_2e
Total Existing Emissions (lbs/day)	0.00	0.00	0.00	0.00
Total Project Emissions (lbs/day)	51014.09	2.21	0.19	51118.48
Total Net Emissions (lbs/day)	**51014.09**	**2.21**	**0.19**	**51118.48**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Emission Factors from Table C.1 and Table C.2, General Reporting Protocol, California Climate Action Registry, January 2009.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, January 2009.

[d] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[e] Emission Factors from Table C.5 and Table C.6, General Reporting Protocol, California Climate Action Registry, January 2009.

[f] 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Mobile Sources

Vehicle Type	Percent Type 100	VMT by Type 0	Emission Factors [a] CH_4	N_2O	CH_4	N_2O	CO_2e 21/310[b]
Project							
Light Auto	48.5	74662.65085	0.05	0.04	8.230	6.584	2213.873
Light Truck < 3750 lbs	10.8	16625.90988	0.06	0.06	2.199	2.199	727.933
Light Truck 3751-5750 lbs	21.9	33713.65059	0.06	0.06	4.459	4.459	1476.087
Med Truck 5751-8500 lbs	9.7	14932.53017	0.12	0.20	3.950	6.584	2124.001
Lite-Heavy Truck 8501-10,000 lbs	1.7	2617.04137	0.12	0.20	0.692	1.154	372.248
Lite-Heavy Truck 10,001-14,000 lbs	0.7	1077.60527	0.12	0.20	0.285	0.475	153.278
Med-Heavy Truck 14,001-33,000 lbs	1.0	1539.4361	0.06	0.05	0.204	0.170	56.880
Heavy-Heavy Truck 33,001-60,000 lbs	0.9	1385.49249	0.06	0.05	0.183	0.153	51.192
Other Bus	0.1	153.94361	0.06	0.05	0.020	0.017	5.688
Urban Bus	0.1	153.94361	0.06	0.05	0.020	0.017	5.688
Motorcycle	3.5	5388.02635	0.09	0.01	1.069	0.119	59.273
School Bus	0.1	153.94361	0.06	0.05	0.020	0.017	5.688
Motor Home	1.0	1539.4361	0.06	0.06	0.204	0.204	67.401
Total Project			**0.98**	**1.08**	**21.54**	**22.15**	**7,319.23**
Net Emissions From Mobile Sources					**21.54**	**22.15**	**7319.23**
			CO2 (from GHG Reg)				
Net Emissions From Mobile Sources (MT/yr)			12604.16048		3.565724705	3.667425961	1211.782267

[a] Emission factors from Table C.4, General Reporting Protocol, California Climate Action Registry, January 2009.

[b] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, January 2009.

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Water Conyenance Analysis

Land Use	Area/Units		Water Usage Rate [a] (gallons\acre\day)		Total Water Usage (gallons\day)	Total Water Usage (gallons\year)	Electrical Usage Rate (KWh\million gallons)	Total Electrical Usage MWh per year	Emission Factors (lbs/MWh) [b] CO_2 804.54	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
Retail/Commercial	6.20	ac	5,000	gpd/n-acre	27,422	10,009,030	12,700	127.11	102,269	0.852	0.470	102,432
Hotel	2.30	ac	6,555	gpd/n-acre	14,250	5,201,250	12,700	66.06	53,145	0.443	0.244	53,230
Office	12.30	ac	5,730	gpd/n-acre	46,337	16,913,005	12,700	214.80	172,811	1.439	0.795	173,088
Residential	608	du	150	gpd/person	120,129	43,847,085	12,700	556.86	448,015	3.731	2.060	448,731
					208,138	**75,970,370**						
							Net Project Emissions in metric tons per year		352.0966	0.0029	0.0016	352.6601

[a] Water Usage Rates from City of San Diego Public Utilities Department Water Supply Assessment *San Diego Corporate Center On-Site Water Study*, 2011.

[b] Emission Factors from Table C.1 and Table C.2, General Reporting Protocol, California Climate Action Registry, January 2009.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, January 2009.

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Solid Waste Generation Analysis

Surface Landfill Gas	Number of sq ft	Waste Generation Rate [a]	CO2 eq [b]
Existing Condition	0	0	0
Proposed Project	1577900	17041.32	24.36909
Net Project Emisisons		17041.32	24.36909

Collection Trucks Emissions

Existing Condition		Emissions from Mobile Sources (lbs/day)			
Vehicle Type		**CO2**	**CH4**	**N2O**	**CO2eq**
Total all Vehicles		0	0	0	0
Lite-Heavy Truck 8501-10,000 lbs	0	0	0	0	0
Lite-Heavy Truck 10,001-14,000 lbs	0	0	0	0	0
Med-Heavy Truck 14,001-33,000 lbs	0	0	0	0	0
Heavy-Heavy Truck 33,001-60,000 lbs	0	0	0	0	0

		Emissions from Mobile Sources (lbs/day)				
Proposed Project		**CO2**	**CH4**	**N2O**	**CO2eq**	
Total all Vehicles		64911.75	--	--	--	
Lite-Heavy Truck 8501-10,000 lbs	1.7	1,103.50	14.54	357.71	1,475.75	
Lite-Heavy Truck 10,001-14,000 lbs	0.7	454.38	5.99	147.29	607.66	
Med-Heavy Truck 14,001-33,000 lbs	1	649.12	4.28	52.60	706.00	
		2,207.00	24.80	557.60	2,789.41	(lbs/day)
		52.06	0.59	13.15	65.79	(MT/yr)

Net Project Emissions in metric tons per year		
	Collection Trucks	65.79
	Landfill Gas	24.37
	Total	90.16

[a] Municipal solid waste factor of 0.0013 tons per sq ft per year from California Recycle 2010.

[b] It was assumed that 75% of the existing landfill gas is collected through landfill gas collection system and piped to external controls. The remaining uncollected landfill gas is emitted at the landfill surface. CO2 equivalent emission factor was obtained from the EPA Greenhouse Gas Emissions from Management of Selected Materials in Municipal Solid Waste 1998.